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THE LANCET.

MDCCCXXVII.—VIII.

IN TWO VOLUMES.

VOL. I.

EDITED BY
THOMAS WAKLEY,
SURGEON.

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THE LANCET.

Vol. I.] LONDON, SATURDAY, OCTOBER 6. [1827-8.

ADVERTISEMENT.

In entering upon a new medical year, the fifth since the commencement of this Journal, we shall occupy, for a short time, the attention of our readers, by taking a hasty retrospect of some of the occurrences which have signalised the past, and by glancing at a few of the subjects in which the medical profession is most deeply interested, and which demand the most serious consideration of its hitherto degraded and persecuted members.

Our friends—in which designation we may truly say is included the great body of the profession—will be gratified at the announcement of the increasing prosperity of this Journal, in the only quarter, perhaps, in which its circulation (among professional readers) admitted of an increase—we mean its Provincial and Foreign circulation. As journalists, indeed, we have no opposition, still less any competition, to contend with; but, though we have no literary competitors, we have an abundance of enemies, whose malignity is one of our strongest claims to the support and confidence of our readers.

Some specimens of the crop of enemies produced by our labours of last year, will probably be brought forward for the entertainment and instruction of the public at an early period of the ensuing season. The efforts of The Lancet in the cause of *Medical Reform* are again threatened to be encountered, by an appeal from the imbecility of those whose reputation may be affected by an exposure of abuses, to the protecting arm of the law. One of the actions commenced against us is probably nipped in the bud by the death of the only party who could have disproved the allegations which the litigant supposes to be injurious to his reputation. The litigant to whom we allude is a learned M. D., of modern Athens, whose resentment, we believe, was originally incurred by our having convicted him of mistaking a Greek poem on astronomy for an anatomical treatise. Certain it is that the learned physician was guilty of that trifling inaccuracy; but we can assure him that, when he charged us in his "declaration" with an attempt to degrade him in the eyes of his employer, and thereby deprive him of the means of subsistence, he imputed to us a design which never entered our imagination, and which we should never have expected to see made a ground of accusation on the part of a doctor of the faculty of medicine. But we fear that the calamity alluded to will screen him from the exposure and punishment which his folly so justly deserves.

In another action with which The Lancet is threatened, the litigant modestly seeks to recover damages on the ground of his principles and practice, in the treatment of diseases of the eye, having been attacked by one of our correspondents. There is one short and conclusive answer to all complaints of this description on the part of a medical practitioner; if his principles or practice be unfairly attacked in a medical journal, there can be no difficulty in successfully vindicating them through the same channel in which they have been assailed. If, on the other hand, his principles or practice be open to censure, and have not been unfairly impugned, how is his professional character vindicated by an action at law, even if he should succeed in obtaining damages at the hands of a jury? By resorting to the former mode of vindicating his character, he will appeal to a tribunal capable of estimating the merits of the question, and the controversy will be confined, for the most part, to professional readers; but by seeking, in an action at law, for an assessment of the quantum of damage his professional character may have sustained, he appeals to an incompetent tribunal; he gives wings to the alleged libel; multiplies ten thousand fold the sources of exposure, and, whether he succeeds or fails in a legal point of view, is, in a medical sense, irretrievably ruined. We shall abstain from comment on the letter of our correspondent, which is to be made the subject of this action; observing only, that if the writer had really borne any ill will towards the person whose method of treating diseases of the eye he felt it his duty to condemn, he might have resorted to a far more effectual mode of gratifying his malice. Let us suppose that the practitioner in question had actually written a book, in which he ridiculed the notion of the human eye being a delicate organ, and maintained, not only that it might be treated with more comparative violence than any other organ of importance in the whole body, but that the ablest and most successful operators, were neither the most gentle nor the most tender in their proceedings. Now if these propositions be peculiar to the individual in question; if these principles be at variance, not only with received popular impressions, but also with the opinions of surgeons of all ages and countries, save and except the practitioner in question, we will put it to the common sense of every man who reads these pages (always excepting the same practitioner) whether such principles, and the practice founded upon them, may not be fairly canvassed, aye, and ridiculed too, in a public journal. Let such a passage as that we have supposed to exist be put into the hands of any twelve men impanelled to try a question involving the ability of the writer to treat diseases of the eye, and if any one of the twelve, after reading it, should declare his readiness to intrust his own eyes to the care of such a practitioner, we should be content to submit to any amount of damages which the plaintiff might seek to recover. We have only to add, that, in this, and all other cases, we are fully prepared to meet the renewed attack of our enemies; in this, and other cases, we have reason to believe, that there are other causes of hostility, as well as the alleged grounds of complaint; but, while we are conscious that our efforts have been uniformly directed to public objects, and our animadversions influenced only by a desire to promote professional interests, we feel confident of the triumphant issue of the struggles in which we may be engaged, either with private malice and ignorance on the one hand, or with corporate imbecility and corruption on the other.

The aspect of the medical profession is already changed; SURGEONS begin to entertain a just sense of their rights and privileges, and cannot fail ere long to obtain the full restitution of those rights and privileges, if they steadily persevere in seeking at the hands of the legislature a removal of the grievances under which they have hitherto laboured. Our own exertions in the cause of medical reform shall be unremitting, and we earnestly call upon every independent member of the profession to co-operate with us. The profession is oppressed by an oligarchy, contemptible in point of talent, as well as of numbers; and it has the stronger reason for anticipating a speedy triumph, as its interests are inseparable from the interests of the public. It has been well observed in one of the ablest and most widely circulated of the daily journals, that the struggle cannot be viewed "as a dispute between the petitioning surgeons and the Council of the College, but as a matter of public importance, since every individual in the country is personally interested in the efficiency and respectability of the surgical profession." We strongly urge the expediency of an application to Parliament at such a period of the ensuing session, as may leave time to proceed upon a practical measure of relief. Individual exertion is more than ever necessary to the success of our cause; let every surgeon throughout the kingdom, who wishes to emancipate the profession from the shackles imposed upon it by ignorance and corruption, deem it a sacred and indispensable duty to exert whatever personal influence he may possess with any Members of Parliament, in forwarding the cause of reform. Every thing is to be expected from the combined energies of the profession directed to an object which all men, who are not interested in upholding the abuses of which we complain, must admit to be just and salutary; just, as regards professional men, who are subjected to the domination of a self-elected, self-perpetuating junta—salutary, as regards the public, whose interests are not less seriously compromised by the existing system of misrule. We are confident that this appeal to our professional brethren will not be made in vain. The Press is with us; the most powerful and enlightened portion of the press has seconded, and will continue to second our exertions; public opinion is with us, for our cause is the cause of all classes of the community. Let the profession be true to itself, and the reign of darkness and cupidity may soon be succeeded by a more auspicious era. Let us treat the mock concessions extorted from the fears of the council, as such concessions deserve to be treated. Let us make no compromise with our oppressors; let us listen to no overtures of pacification, unless they guarantee to us a system of government in which every member of the College may have a voice in the election, and a control over the conduct of those to whom his professional interests are confided.

It will be seen in another part of our publication, that the worshipful company of Apothecaries has just put forth a new series of regulations, the effect of which will be greatly to extend the period of attendance on lectures by the candidates for their valuable license. These incorporated shop-keepers seem to have no conception of any other ingredients in the qualification of a candidate, than the *time* and *money* he has expended in preparing himself for his profession. This absurdity pervades in a great degree all existing tests of medical qualification; as if the *knowledge* of the candidate were not the only fact which it is of importance to ascertain. If a student possess the requisite knowledge to enable him to embark in the medical profession, what matters it *where* or *when*, or *under whose instruction*, he has acquired that knowledge. One student may acquire the same degree of professional information in half the time required by another; ought his superior abilities, or diligence, to be made the ground of rejection? Let adequate *public examinations* of candidates for the medical profession in all its branches, be established, and all conditions of admissibility, except the single condition of the candidate's competency, might be at once dispensed with. Mere *vivâ voce* examinations are inadequate tests; let candidates, in addition to operations and dissections publicly performed, be required to furnish written answers to a series of printed questions on the different branches of professional knowledge, according to the plan adopted in examinations for mathematical honors at Cambridge, and their competency or incompetency would be put upon record.

If such a system of public examination were adopted, it might tend to put an end to the strife which at present agitates the different classes of practising physicians. War, horrid war, is the order of the day among the "Fellows," the "Licentiates," and the "Independents." We have our eye on the several combatants, but have forborn hitherto from taking any part in the strife. If the contest should terminate like that of the Kilkenny cats, which fought till they left nothing on the field of battle but their respective tails; if, in short, the *pure* "Fellows," the *pure* "Licentiates," and the *pure* "Independents," should finish the combat by destroying one another, we know not that the public would have any great reason to regret their annihilation. In the absence of such a test of medical ability as that which would be afforded by public examinations, it cannot be denied that an academical education at Oxford or Cambridge affords a better security to the public, for the competency and respectability of a practitioner, than the mere fact of possessing a Scotch diploma. The academical education may not of itself afford much opportunity of acquiring professional knowledge, but a man who has incurred the expense of such an education, for the express purpose of taking a medical degree, is more likely to qualify himself for the discharge of professional duties, than one whose diploma may prove nothing but the fact of an outlay of capital to the amount of fifteen pounds.

We adverted, on a late occasion, to the injurious consequences which resulted from the *out-patient* system at our public hospitals and infirmaries, both as regarded the interests of medical practitioners, and the due administration of relief to patients within the walls of those institutions. The subject was rather broached than discussed, but it has elicited a vast number of communications from correspondents residing in every part of the empire, and we shall take an early opportunity of returning to it. We may observe, however, that this is one of the many abuses of which the profession has ample reason to complain, which admits of no remedy in the absence of an efficient governing body. The College of Surgeons, in its present condition, is a scandal to the profession, and an injury to the public; and although we would rather refer to our past labours in the cause of reform, as indicative of our intentions, and the manner in which they will be fulfilled, than indulge in boastings and promises; yet we cannot avoid declaring, that it is our fixed and unalterable determination to continue to hold up the imbecility of the Council to public ridicule, and the iniquity of their regulations to universal reprobation—until the one shall cease to dishonour the profession, and until the other shall no longer prove detrimental to the public health.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY,
DELIVERED AT GUY'S HOSPITAL BY
DR. BLUNDELL.

GENTLEMEN,—Although, perhaps, but little useful information can be derived from a sterile definition of the term *Midwifery*, yet it may not be amiss to remark, in introducing the subject to your notice this morning, that by the term midwifery, you are to understand that part of the art and science of medicine, which has for its object the consideration of the *structure, functions*, and *diseases* of the *female system* in general, more especially of the *female genitals*. And as the diseases of *young children* are frequently brought under the notice of the *accoucheur*, I have been accustomed to subjoin these to our course of obstetric lectures in the way of appendix.

Though the art and science of midwifery, thus defined, is somewhat circumscribed, yet you will find that it may with advantage be divided for our further consideration into different sections. And without wasting your time or my own by entering into long disquisitions respecting the advantages or defects of different modes, I shall endeavour plainly to lay before you that system of arrangement which I propose myself to adopt.

To the student of midwifery, I conceive it is of the first importance, in order that he may thoroughly understand the process of delivery, that he should be acquainted with the *pelvis*, the *child*, and the *softer parts* in connexion with the pelvis, so far as the properties of those are concerned in the process of parturition. This, therefore, will form the first section of our subject.

Although the process of delivery, with the exception of a few extraordinary cases, is always essentially the same, yet we find this process varying a good deal in the circumstances by which it is accompanied; and this diversity of circumstances requires occasionally a corresponding diversity in the method of treatment. It hence becomes necessary to divide-delivery, according to its different circumstances, into different classes; and, agreeably to the arrangement I have myself adopted, and which I find sufficiently accurate for the purpose of laying down practical rules of management, labours may be divided into the following five classes:—the natural, the preternatural, the flooding deliveries, and those which are laborious, and those which, though on the whole natural enough, are complicated with some extraordinary circumstance; the consideration of these forms of labour will constitute the second section of our subject.

You will generally find, after parturition has been accomplished, especially if the accoucheur have not been meddlesome, and more particularly among your country patients, that women require very little subsequent attention. Labour is a natural process, and the majority of them do perfectly well. Although, however, this is generally the case, yet we find sometimes in the dense populations of large towns, more especially that after parturition, distressing or dangerous diseases are apt to occur; *puerperal fever*, for example, or mammary diseases, or *derangement of the actions* of the brain, not to mention other puerperal affections which might be enumerated; and hence it becomes necessary that we should give our attention to the management of women after delivery has taken place: and this will constitute the third section of our subject.

When women are in a state of gestation, I need scarcely state to you, that the genitals are undergoing very considerable changes. The *ovarium* forms the *corpus luteum* hereafter mentioned. The *womb* itself undergoes more conspicuous changes, and the fœtus and the water and the placenta and the membranes, are all generated within its cavity, the sides thickening, and its capacity enlarging. In a word, when gestation occurs, the genitals undergo the most important changes, which give rise sometimes to disease in those parts, sometimes to disease in the system in general; and these will also occupy our attention, forming the fourth section of our subject, viz. the *gravid uterus*, as it is called.

The last division, will comprise a part which we must not pass over in silence, though I find you are in general disposed to give it but a negligent attention, I mean the consideration of the genitals in the unimpregnated state, and of the diseases to which they are liable. Your inattention to this important section of our inquiries, leads me to treat this subject in a somewhat cursory manner, though my considerate opinion is, that it forms one of the most valuable parts of midwifery; and with it the course will close.

Of the Pelvis, the Child, and the softer Parts, so far as the knowledge of these is necessary for the thorough comprehension of delivery.

When the accoucheur gives his attention to the study of the pelvis, he soon discovers that there are two modes in which it may be advantageously examined. He may consider the different *bones* and *joints* and *ligaments* of which it is formed, and he may examine also the *obstetric properties* which belong to the *bony case*, produced by the connexion of its different parts; in both which points of view I purpose, in the succeeding lectures, to bring the pelvis before you. We will, then, if you please, this morning commence with the consideration of the different bones of the pelvis, the joints, and the ligaments of which it is composed, so far, observe, and so far only, as the *properties* of those bones are interesting to the accoucheur, for into the general anatomy of the parts, it is neither my design nor province to enter.

We find in the young child and fœtus the bones of the pelvis more numerous than in the adult, being at least eight in number; the *os ilium*, the *ischium*, the *pubes*, on either side, the *sacrum*, and the *os coccygis*; but in the adult, although nominally this division exists, it is in reality wanting, the bones of the pelvis being in number four only, namely, the two *ossa innominata*, or side bones, which I now demonstrate; the *sacrum*, or that large bone which is fitted in behind, and, in connexion with the end of the sacrum, the *os coccygis*.

Os Coccygis.—The os coccygis, a small triangular bone which I here exhibit to you, is frequently mentioned by the practitioner of midwifery, therefore one or two obstetric remarks upon it may not be misplaced. It is connected with the lower extremity of the sacrum, and is liable to be pressed upon when the child's head is emerging, especially if the head be large or the pelvis small; and hence arises its obstetric interest. Though usually considered as consisting of one piece only, in reality we find that the os coccygis is made up of several—of two or three, not unfrequently connected together by cartilage, so that the bone hence acquires a certain degree of *flexibility* which may adapt it a little to the passage of the child. It has been asked sometimes why this bone, the os coccygis, has been given to the pelvis both in the male and female, or why it is connected with the sacrum by means of a moveable joint? In the female there is an obvious advantage derived from its mobility on the sacrum, for the bone of consequence receding when the child comes into the world, gives more room for its passage, as you will find hereafter; but this cannot be the reason why this bone should be found in the male, though a pregnant male is not an impossible phenomenon. My own notion is, that the coccygis may be properly recorded as a *tail-bone* of our species. We find, when we examine the history of animals, that there are certain organised parts which are not developed in certain genera, although in other genera they are. Of these parts you have examples in the muscles of the human *ears*, which look like a sort of vestige of the muscles to be found in connexion with those parts in animals. In the *nipple* of the male sex, a sort of vestige of that more perfect structure met with in the female, you have another example of the same kind of structure; not to mention the dartos and platysma myoides, the vestiges of the panniculus carnosus. Now I agree with those who think the os coccygis to be nothing more than a vestige—a vestige in man of that which we meet with in very many genera, where it exists in a high degree of perfection: but enough of this.

Sacrum.—The next of the bones of the pelvis to which I shall request your obstetric attention, is that which is fitted into the back of the pelvis, as I here show you, a large triangular bone, called the sacrum, and presenting several points of study to the anatomist, though but few, however, to the accoucheur. When we examine the sacrum, (and you have here a specimen of it,) we find it to be a bone of considerable size, triangular in its shape, curved, the convexity of the bone being posteriorly, the concavity in front, the latter being frequently mentioned by the accoucheur under the name of the hollow of the sacrum. On the upper edge (the basis of the triangle) there is a projection in the middle, and it is this projection which, in connexion with the body of the last lumbar vertebra, forms what the accoucheur mentions so frequently under the name of the *promontory of the sacrum.* Besides the form of the bone, I wish you to notice the articulatory surfaces, those which unite it above with the last lumbar vertebra, that which connects it below with the os coccygis; and those, lastly, which unite it laterally with the ossa innominata, as these preparations demonstrate.

Ossa Innominata.—When, turning our attention from the sacrum and coccyx, we again examine the pelvis, we find that the principal bulk of it is formed by two very large bones, which I here show you, the ossa innominata, familiar to every anatomist. Those bones, of very large size and very irregular shape, possess, however, but few points requiring obstetric attention, and these few I shall next enumerate. In the adult, the os innominatum is made up of two pieces; this the accoucheur should notice, the one forming the *body*, the other the *wing* of the bone; and those two pieces, as you see, are connected or consolidated to each other in such a manner as to form a salient angle, or edge, which I shall frequently have to mention under the appellation of the *brim of the pelvis.* In the young child and the fœtus we find that the bone is differently divided, consisting, as observed already, of three pieces, the *os ilium*, the *ischium*, and the *pubes*. I place the bone in its proper position in relation to my own person; I now advance it, and circumscribe with the probe respectively the portion which lies above and in front,—the os pubis; the portion below and somewhat behind the ischium, and the remaining and larger portion, the ilium; this division met with in the fœtus, is *nominally* preserved even in the adult, and of it I shall frequently have occasion to avail myself when treating hereafter of deliveries. In the os innominatum, on either side, you should notice this large *acetabulum*, which, in conjunction with the head of the femur, forms the *hip-joint*. The large *aperture*, the *obturator foramen*; the *tuberosity* of the ischium, the part upon which we sit; the *spinous process* of the ischium, a pointed process of the bone projecting backwards and downwards a little; the *hollow* of the ilium; the *articulatory surfaces*, one in front, uniting the os innominatum on the one side with its fellow on the other; and the other posterially, severally connecting the bones with the sacrum. So much then with respect to the bones of the pelvis, the sacrum, the os coccygis, and the two ossa innominata.

Vernacular terms.—It may not be impertinent, in dismissing the consideration of the bones, to give you the names by which they are known in our *maternal tongue*, because *female* practitioners, with whom you must occasionally meet, use them in preference to classical terms, ill suited to Teutonic organs, and therefore without the knowledge of the vernacular expressions you might be at a loss to understand what is meant. The bone on which we sit, the ischium, they very properly call the *sitting bone*; the pubis the *shear bone*; the os ilium the *haunch bone*; the sacrum the *rump bone*, inelegantly, perhaps; and the little bone, the os coccygis, for reasons that I have not fathomed, they call the *huckle*, perhaps an euphonious and more graceful substitute for knuckle.

Ligaments.—When the anatomist examines the pelvis he finds there a variety of ligaments, some of them of no small importance in surgery, a delicious study for the amateurs in hernia. In an obstetric view, however, the ligaments which alone are of importance, are the *obturatores*, and more especially the *sacro-ischiatic* ligaments, for with the ligaments of Poupart and Gimbernat the accoucheur has little to do. And first of the obturatores. In the ossa innominata we have, in either bone, a large aperture, through which two or three fingers may be passed—the *obturator foramen*, already demonstrated; with a sheet of ligament (the obturator ligament) in the recent pelvis this aperture is closed; and although examining this ligament we often find in it several apertures made by the dermastes, or the more destructive fingers of noviciates, naturally there is one aperture only, placed above towards the back part, and transmitting the obturator artery, vein, and nerve—the vein not of so much importance, the artery of considerable interest, and the nerve frequently mentioned by the accoucheur, as the trunk of it is liable to be compressed and injured under the passage of the fœtal head. But to proceed.

The *sacro ischiatic ligaments*, which I propose to notice next, are a set of ligaments lying on the sides of the pelvis, and somewhat behind, a specimen of which I here exhibit. Into two pairs they are divided; the one lying externally, the other within, and hence the appellation of the *external* and *internal*. The external sacro-ischiatic ligament, arising strong and narrow from the tuberosity of the ischium, passes outwards, backwards, and upwards, becoming very broad, to be inserted into the lower part of the sacrum and upper part of the os coccygis. The internal ligament arising narrow and strong from the ischial spine, passes upwards and backwards, to be inserted broadly into the lower part of the sacrum and the upper part of the os coccygis, laterally, much in manner like the former.

Joints.—When, resuming the pelvis, we examine it with a view to its articulations, we find they are several: and the hip, the lumbar, the sacro-iliac, the sacro-coccygeal joints, together with the *symphysis pubis*, may all claim our attention; but of these articulations the three last only are of obstetric importance, and of these I proceed to treat.

Sacro-Coccygeal Joint.—The sacro-coccygeal joint, I have observed already, is a moveable joint, allowing the os coccygis to recede considerably, moving on the sacrum, so as to enlarge the outlet of the pelvis posteriorly to the extent of an inch. This joint, constituted in the same manner as the other joints of the body, has articulating surfaces, invested with cartilage, covered also with synovial membrane, the ends of the two bones being connected by capsular ligament, which, rising all round from the extremity of the sacrum, is inserted all round, into the extremity of the coccyx, and completes the articulation. It sometimes happens, that this sacro-coccygeal joint is the subject of disease, or of accident, and hence its principal interest to the accoucheur. In obstetric works, you will find mention made of *anchylosis* of the os coccygis, a disease under which, in consequence of an ossification of the joint, the sacrum and the os coccygis become consolidated with each other, as in the specimen I here show you. This anchylosis of the sacro-coccygeal joint I conceive to be of very rare occurrence;

and I believe it still more rarely happens, that this anchylosis produces any *serious* obstruction to parturition; yet should it so happen that the coccyx were placed at right angles with the sacrum, and thus became anchylosed, encroaching on the capacity of the inferior aperture of the pelvis, it might certainly, if the child's head were large, considerably obstruct transmission. Such difficulties, perhaps, have now and then occurred, but by no means so frequently, I am persuaded, as from conversation, or reading obstetric works, we might be led to suppose. It more frequently happens, that instead of anchylosis, you have a *rigidity* of the part. A woman may be 40 years of age before she marries, and perhaps she has a child at 41; her health may have been vigorous, her flesh firm, her fibre rigid and unyielding, so that the sacro-coccygeal joint and the perinæum, and all the parts, may be indisposed to give way. Now a rigidity of the sacro-coccygeal joint, with a rigidity of all the parts adjacent, is a very formidable obstruction to the passage of the fœtus, not an unlikely occurrence in country practice, and where it does occur, unless properly managed, not unfrequently destructive to both the mother and the child. Should it be my lot in practice to meet with a case allied to those I have been describing, a case in which, from anchylosis of the sacro-coccygeal articulation, or general rigidity, the birth of the head was obstructed, the following would be my practice. Laying it down as an axiom never too often iterated, that a meddlesome midwifery is a bad midwifery; provided no dangers occurred, clearly requiring immediate delivery I should for four and twenty hours after the discharge of the waters, give a fair trial to the natural efforts. Should dangerous symptoms urge, or should the 24 hours pass before the delivery was accomplished, if the vulva were relaxed, and the obstruction arose from anchylosis, I should, with the forceps I here demonstrate, and by moderate efforts, co-operating with the uterine, endeavour to extract the child, frequently examining the pulse and the countenance, and bearing on my mind the fatal consequences of obstetric violence. The yielding of the anchylosis under moderate effort, would not, perhaps, be undesirable; room might thus be obtained, and the child might now and then be saved. Should the forceps fail, or should the rigidity of the vulva preclude their use, if urging and dangerous symptoms demanded immediate delivery, I should then, though unwillingly, have recourse to that murderous instrument, the perforator; but if no dangers threatened, anxious not to cover my hands with the blood of an innocent infant, unless I believed the child to be dead, I should wait until the woman had been in strong labour for eight and forty hours after the discharge of the liquor amnii, then at length laying open the cranium, should it still not pass away.

It sometimes happens, though I believe not commonly, that a *disruption* of the sacro-coccygeal joint occurs. The head perhaps is large, the pelvis is small, the pains are violent, and suddenly the head emerges from the pelvis; when it does so, there being a very strong pressure on the coccyx, the joints may be torn asunder. With a case of disruption, I never met myself, but cases where the sacro-coccygeal joint has been thus torn, are mentioned in *Denman's* very excellent work, which I must recommend to your perusal; it may, I think, he tells us, be sometimes heard to give way. Should disruption occur, it may be soon detected. Put the fore finger of the right hand into the rectum, pushing it up to the joint, and apply the thumb over the joint in apposition externally, when the chasm between the two bones may, I should conceive, be easily ascertained. Such a case should be managed on the general principles of surgery, but let me add obstetrically, that during the cure, you should so place your patient as not to throw the os coccygis directly forward in the front, for from the preceding remarks, it seems desirable that the os coccygis should not unite rectangularly with the sacrum, but under the ordinary bearing, so as to form a part of the general curve.

With *inflammation* of this joint your patients are sometimes affected; examples of which, both acute and chronic, I have myself seen. Wholly unconnected with pregnancy or parturition, inflammation may occur, and still more frequently may it be brought on in consequence of the passing of a large head, where there has been vehement straining, and the joint, though not torn, has been strained. If inflammation of the coccygeal joint occurs, you will know it by the patient's complaining of pain there, and more especially by stating, that whatever moves this little bone behind, gives a sudden pang of uneasiness; in sitting, in rising, in turning round on her bed, the pain may be produced. I remember once, on visiting a patient in whom labour had been labourious, being surprised not a little to find her seated on the frame work of a chair, from which the bottom had been removed. On asking her why she seated herself in a manner so extraordinary, I learnt, that unless she had recourse to this expedient, which you will perceive removed pressure from the coccyx, she was continually uneasy. Taking an intimation from this observation, I made an accurate examination of the joint, and then ascertained more especially by moving the coccyx on the sacrum, that the articulation with its ligaments was in a state of inflammation, and that the slightest disturbance occasioned pain.

Leeches, clysters, cupping, perhaps from the loins and sacrum, *diaphoretics, digitalis, low diet*, and *blood* from the arm, provided the inflammation runs high, these will constitute your principal remedies, and the joint should be still. It is remarkable, that where there has been this inflammation, like rheumatism, it seems afterwards to be affected by the weather, and more especially when there is an east wind, which is worth your recollection. Patients of this kind will complain of pains in that way for years afterwards, as I have had occasion to observe in the patient whose case I have related.

In *scrofulous* subjects, it sometimes happens that the sacro-coccygeal joint partakes not merely of an inflammatory, but of a suppurative action, and the parts may fall into a sort of *malignant* condition, so that the disease will not heal. In a case of this kind, should all other attempts fail, I may remark, by way of suggestion, that you might perhaps remove the os coccygis altogether, as this bone does not appear to be of any very great importance in the skeleton; afterwards, paring away the diseased extremity of the sacrum, till you reached the sounder parts more disposed to the healing process. The hint may be worth recollecting, but of temerity, beware. And here, perhaps, I may take the liberty of observing, that malignant actions are sometimes confined to a few *films* of structure only, so that if you can but destroy those few films, you will at once come down upon a healthier organisation which will heal; whereas, if you left the case to itself, it would go on working to the patient's destruction. A chancre treated by lunar caustic, is an illustration of this, *sed hæc hactenus*.

Symphysis pubis.—The next joint which I shall request your attention to this morning is the symphysis pubis, a joint of vast importance in midwifery, and of frequent mention. This joint unites the ossa innominata in front. There is nothing peculiarly interesting in the structure. It is formed of the extremities of the ossa innominata, invested by cartilage, connected together by means of a fibrous substance, and more especially strengthened by a strong capsular ligament passing across it, arising all round from the extremity of one bone, and inserted all round into the extremity of the other. It is upon this ligament, the main strength of the joint depends; for if you were to take it away, the bones would have but little connexion. The ligamentous fibres are much more abundant on the outer than on the inner part; and there is wisdom in this; for a mass of ligament, internally, would have contracted the pelvis, where it is so frequently contracted, between the front and back of the brim, and would thus have presented a further obstruction to parturition. In a practical view, the thinness of the ligament on the back of the symphysis pubis is not without its interest. The joint, as you will hereafter understand, is sometimes filled with matter, sometimes otherwise disorganised. Now, though externally these parts may, no doubt, be examined by the touch—a manual examination may be most successfully made within; and this, too, notwithstanding the urethra is lying along upon this part. Make your observations on the pelvis I here send round.

I shall now show you a preparation of the ossa innominata of a young child, divided into the ischium and pubes. Here is another preparation which shows the division of the same parts into the ilium, ischium, and pubes, which I wish you to notice with particular care. Here is a preparation showing the sacro ischiatic ligaments very well; and as they are important in midwifery, I should wish you to notice them also with attention. Here is a preparation exhibiting the symphysis pubis: the preparation is formed in this way—taking a saw, and cutting from side to side, you separate the front from the back, obtaining thus the view I now present; you see the articulatory extremities of the bones, the cartilage and intervening substance, and behind the ligamentous fibres, all very plainly.

Should any gentlemen wish to examine these preparations more minutely, I beg they will come down to the table and do so.

When we meet again, I shall proceed to the consideration of the diseases of the symphysis pubis.

FOREIGN DEPARTMENT.

ON CANCER OF THE STOMACH, BY DR. BOUILLAUD.*

Cancer of the stomach, as that of every other organ, is, according to M. Bouillaud, the termination of chronic phlegmasia; and to justify this opinion, which he has expressed a long time, (voy. *Nouv. Bibl. Méd.*, Vol. IV. 1826,) M. Bouillaud relates five cases of individuals who died from cancerous affection of the stomach, and who had, during their lifetime, experienced symptoms of chronic gastritis. Hence, in the first case, the disease was developed by external violence, which caused a great number of tubercules, of cellular adhesions, scirrhous degenerations of the subcutaneous tissues, and very naturally cancer of the stomach.

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* Journ. Complém.

The second experienced constipation and pain at the pit of the stomach, which presented the character of gastritis.

The third complained of uneasiness and weight in the region of the stomach, and rejected everything taken into the stomach. The fourth experienced for a long time a kind of constriction in the epigastrium, and vomited *all kind of* nutriment, even mild drinks. This was a female who had received bad treatment from her husband; she frequently vomited blood.

Lastly, the fifth case was that of a perfumer, who two years previous had experienced evident symptoms of gastritis, viz. pain in the epigastric region, great thirst, vomiting, &c.

CÆSARIAN OPERATION SUCCESSFULLY PERFORMED TWICE ON THE SAME PERSON, BY DR. G. SCHENK, OF SIEGEN.*

A woman, thirty-six years old, of lean habit, mother of six children, being affected during her seventh pregnancy with mollities ossium, the softening of the bones of the pelvis had caused such a deformity of this cavity, that the ischii were not distant from each other more than two fingers' breadth. The Cæsarian operation was absolutely called for, labour pains having been present three days, without any progress being made in the delivery. The patient courageously submitted to this operation, and the child was extracted by an incision made in the course of the linea alba, from the navel to the pubis; the child was arrived at the full size, and soon gave signs of life. The delivery was effected without difficulty, and about a pound and a half of blood was lost during the delivery. The uterus soon contracted, the wound was immediately united by sutures, and after some pains in the loins and abdomen had passed away, the blood took its course by the vagina. In the course of the eighth day, the symptoms became more alarming, and a fatal issue was feared; very great pain and tension of the abdomen, suppression of the fæcal and urinary evacuations, respiration difficult, pulse frequent, diminution of the lochial discharge, &c. But these symptoms disappeared by the administration of *strong doses of castor oil and exciting clysters*; ninety hours after the operation, the wound was found to be reduced from six to four inches; good suppuration came on about the twelfth day, and with the exception of some difficulty in voiding the urine, the cure was completed without any other bad symptom. The cicatrix was not quite completed three months after the operation, when the menses naturally appeared, and some of the blood escaped by the wound; the same thing occurred in the following month, after which the wound was completely cicatrised. Notwithstanding the injunctions of the surgeon in attendance, this woman became pregnant an eighth time in December, 1824, and a Cæsarian operation was the second time performed, and with the same success.

Section of Surgery.—Sitting of the 18th of July.

CANCER AT THE LOWER PART OF THE RECTUM.

M. Lisfranc related an operation which he had performed at the *Pitié*. A cancer was situated at the lower part of the rectum, extending nearly from one tuber ischii to the other, and its antero-posterior diameter being about two inches in length. The finger could be passed into the rectum above the swellings, which were placed at about two inches around this intestine. The upper part of the swelling was easily moved and drawn downwards. M. Lisfranc supposing that the disease was limited to the mucous membrane, attempted its removal; he made two semi-lunar incisions around the cancer which met at their extremities, and dissected from without inwards through half the substance of the sphincter ani; then by the introduction of his finger, he drew the diseased mass downwards, and removed it with a pair of scissars. Two vessels only required securing. The cure was completed in three months; the patient keeps his fæces as well as ever, and goes to stool without pain.

APOTHECARIES' HALL.

Regulations for the Examination of Apothecaries.

The Court of Examiners chosen and appointed by the Master, Warden, and Assistants of the Society of Apothecaries of the City of London, in pursuance of a certain Act of Parliament, "For better Regulating the Practice of Apothecaries throughout England and Wales," passed in the 55th year of the reign of his Majesty King George the Third, have determined:

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* Siebold's Journ. für Geburtshülfe, &c. 1826.

That every candidate for a certificate to practise as an Apothecary, shall be required to possess a competent knowledge of the Latin language, and to produce testimonials of having served an apprenticeship of not less than five years to an Apothecary; of having attained the full age of twenty-one years, and being of a good moral conduct.

N. B. Articles of apprenticeship, where such are in existence, will be required; but, in case such articles shall have been lost, it is expected that the candidate shall bring forward very strong testimony to prove that he has served such an apprenticeship as the Act of Parliament directs.

He is also required to produce certificates of having attended not less than—

One course of lectures on materia medica and medical botany;

One course of lectures on chemistry;

Two courses of lectures on anatomy and physiology;

Two courses of lectures on the theory and practice of medicine: these last to be attended subsequently to the lectures on materia medica, chemistry, and to one course, at least, of anatomy.

N.B. No testimonial of attendance on lectures on the principles and practice of medicine, *delivered in London*, or within seven miles thereof, will render a candidate eligible for examination, unless such lectures were given, and the testimonial is signed by, a fellow, candidate, or licentiate of the Royal College of Physicians.

A certificate of attendance for six months, at least, on the medical practice of some public hospital or infirmary, or for nine months at a dispensary; such attendance to commence subsequently to the *termination* of the *first course* of lectures on the principles and practice of medicine.

N.B. Physicians' pupils, who intend to present themselves for examination, must appear personally at the beadle's office, in this Hall, and bring with them the tickets, authorising their attendance on such practice, as the commencement thereof will be dated from the time of such personal appearance.

The regulations relating to the order of succession in which the lectures on the practice of medicine, and the medical practice of an hospital or dispensary, are to be attended, are designed to apply to those students only who shall commence their attendance on lectures on or after the 1st of February 1828; and all such persons are particularly requested to take notice, that unless they shall have strictly complied with such order of succession, they will not be admitted to an examination.

In addition to the course of study above required, and which is indispensably necessary, the candidates are earnestly recommended to attend one or more courses of lectures on midwifery, and the diseases of women and children, on the latter of which subjects, as an important part of medical practice, they will be examined.

The court have determined, that the examination of the candidate shall be as follows:

1. In translating grammatically parts of the Pharmacopœia Londinensis, and Physicians' Prescriptions.

Should any doubt arise as to the Candidate's possessing a competent knowledge of Latin, he will be required to translate a passage, or passages, from some one of the easier Latin authors.

N.B. The Court are anxious to impress upon candidates a conviction of the necessity of a knowledge of the Latin language, because they have had the painful duty imposed on them of rejecting several persons, entirely from their deficiency in this important pre-requisite of a medical education.

2. In chemistry.
3. In the materia medica and medical botany.
4. In anatomy and physiology.
5. In the practice of medicine.

Notice.—Every person intending to qualify himself under the regulations of this Act to practise as an Apothecary, must give notice in writing, addressed to the clerk of the Society, on or before the Monday previously to the day of examination; and must also at the same time deposit all the required testimonials at the office of the beadle, at Apothecaries' Hall, where attendance is given every day (except Sunday) from nine until two o'clock,

The Court will meet in the Hall every Thursday, where candidates are requested to attend at half-past one o'clock.

By order of the Court,

John Watson, Secretary.

London, Sept. 14, 1827.

Information relative to the business of this Court may be obtained of Mr. Watson, at his residence, 43, Berner's-street, between the hours of nine and ten o'clock every morning (Sunday excepted).

⁂ It is expressly ordered by the Court of Examiners that no gratuity be received by any officer from any person applying for information relative to the business of this Court.

PRESSURE IN UTERINE HÆMORRHAGE.

To the Editor of The Lancet.

Sir,—In 1818, Dr. Ramsbotham gave to the profession the results of a practice not generally known, for promoting the contraction of the uterus to restrain hæmorrhage after the expulsion of the placenta. This practice consisted in the application of pressure by means of the hand. Very soon after this treatment was made known, it was suggested by Dr. D. Davis that a compress might be substituted, and secured in such a manner as to ensure contraction of the uterus, and render a return of the hæmorrhage absolutely impossible. Mr. Searle *tells* us that three years ago, *he* discovered that pressure would contract the uterus and restrain hæmorrhage. The object of my former letters was to set him right upon two points where he was certainly wrong; first, in thinking that *he* was the discoverer of the utility of pressure, which was before done and published by Dr. Ramsbotham—and, secondly, in supposing that *he* was the first to discover that applying pressure by means of a compress was more convenient, and more completely effected the object sought to be obtained. This was taught by Dr. Davis three years prior to Mr. Searle's questionable discovery of it, and six years before Mr. Searle shone upon the medical world, with the reflected light of Drs. Ramsbotham and Davis. For rendering justice to these gentlemen, I have incurred Mr. Searle's resentment, and obtained for your readers the favour of another letter from him, which, with the exception of additional evidences of his very superficial acquaintance with the subject, is full of "damnable iteration." I cannot hope to be indulged with room to analytically answer his dispatch; but, in the justice and impartiality of The Lancet, I, in common with even its enemies, have the most unbounded confidence. I am consequently induced to again intrude upon your notice some remarks suggested by Mr. Searle's last letter.

I give him full credit for sincerity, in saying he would have withheld from the world his imaginary glory, could he have foreseen the consequences of relating it. Is not three successful cases sufficient to justify a practice? Perhaps Mr. Searle is not satisfied with Mr. Wardrop's success in tying the carotid, because he has not done it thirty times; and although that gentleman's merit and success are alike self-evident, they may be questioned, because he has only had three or four cases. Mr. Searle obliges us with a quotation of his own words, on which I am obliged to be the commentator; for, he says, although gentle pressure with the hand is useful to excite contraction of the uterus, it is doubtful whether it be of the least utility in uterine hæmorrhage. Now I think it is not doubtful, for anything that excites uterine contraction must diminish hæmorrhage, by lessening the calibre of the open mouths of the vessels of that part to which the placenta has been attached. And if pressure can be so applied as to produce this effect, it matters little how it be performed, whether by "grasping the uterus" "by gentle pressure," "sitting upon the patient's belly" "on a compress of bowels," or "sticks and tablecloths" forming "the arcs of a circle," "or quarto volumes," or, for lack of these, perhaps he might not object to "two octavo volumes neatly bound." Whichever of these means restrains the discharge upon the principle before alluded to, may, I think, (although Mr. Searle does not) be deemed efficient pressure, for its efficacy is proved by its success. Cases may occasionally occur where the uterus may have no specific power of contraction, where it is flaccid and inert; these are cases where added to pressure plugging must be useful, although Mr. Searle cannot perceive it. As the case of epistaxis, supposed by Mr. Searle, is neither a parallel nor an exemplification, I pass it by. I omitted to describe Dr. Davis's improved mode of applying pressure, because Mr. Searle did so when he "committed" his first letter; it consists in tying a compress firmly over the uncontracted uterus, by means of a sheet or tablecloth; he usually employs a pillow rolled into a hard pad; the Doctor suggested it might be sat upon, but he did not prudently direct that the person should be a "light weight." This mode is infinitely superior to the "quarto volumes," because the means are always at hand, which the "quartos" may not be, unless the patient lie in a library. Mr. Searle is unfortunate in never being right even by mistake; how can he reconcile his practice with reason, when he says he gave the laudanum to lessen the "force and quickness" of the heart and arteries? Mr. Searle also gave wine and brandy—did he give these also to lessen the quickness of the heart and arteries, or did he expect that they would aid the "acidity and coldness of the vinegar and water," in "constringing the vessels," and checking the hæmorrhage? The fact is, that the treatment of Mr. Searle's case, with the exception of the pressure and the stimulants, was as exceptionable as the last mentioned means were appropriate.

With many thanks for your impartiality,
I have the honour to remain, Sir,
Your most obedient servant,
W. A. Walford.

Judd-street, Sept. 3, 1827.

ST. THOMAS'S AND GUY'S HOSPITALS.

DISEASES OF THE TESTICLE.

SIMPLE CHRONIC ENLARGEMENT.

One of the most frequent forms of disease affecting the testicle, is a simple chronic enlargement, with induration of its substance, so that the whole gland is gradually converted into a hard solid mass, losing its naturally soft and vascular texture, and becoming, as it were, an heterogeneous substance. With respect to the anatomical characters of the disease, they show disposition of lymph to have taken place in the cellular tissue connecting the tubular structure of the gland, and according as the disease may be of more or less duration, so is the healthy structure found to be more or less obliterated. The disease is essentially a *simple* chronic enlargement, the interstitial deposit being in all probability the result of chronic inflammatory action, and therefore unlike the *specific* chronic enlargements, fungus and scirrhus, is a curable disease, and not requiring an operation for its removal. It is in general cured by the exhibition of mercury to ptyalism, and afterwards keeping up its action on the system for some time, under which the newly deposited matter is absorbed, and the chronic enlargement subsides. Simple chronic enlargement of the testicle occasionally terminates in abscess within the body of the gland, when the disease called *superficial fungus* is produced, and it should also be observed, that as in other parts of the body, although the tumour may be *simple* enlargement in the commencement, it may afterwards assume a malignant character. Of this we lately saw an instance in the practice of Mr. Tyrrell, in which case the disease had existed as a simple chronic tumour for several years, when an accidental local excitement, injury to the part, developed a malignant disease, fungus hæmatodes, which pursued a rapidly destructive course.

The two following cases are examples of simple chronic enlargement of the testicle, cured by mercury :—

Case 1.—E. B., 34 years of age, a sailor, admitted into William's Ward, under the care of Mr. Travers. The right testicle had been swollen four months previous to admission ; the patient stated that the swelling did not gradually form, but came on rapidly in the course of a week. He had laboured under gonorrhœa, with a bubo in the groin, and also had had stricture four years before, but was perfectly free from these affections when admitted. The right testicle was found on examination to be enlarged to three times its natural size, very hard, and slightly tender to the touch ; the line of demarcation between the body of the testicle and the epidydimis destroyed, so that the two substances were blended into one solid mass ; the chord was very hard, and manifested considerable tenderness on pressure, to some distance above the abdominal ring. The patient's appearance was unhealthy ; he said that he had been in the West Indies three months before admission, where he had acute rheumatism, and during this attack a swelling formed on each tibia. On the inner side of each tibia, there was a firm periosteal swelling, which the patient described as being very painful at night, when warm in bed. Ordered,

Calomel, 1 grain ;
Tartar emetic, 1-6th of a grain ;
Opium, $\frac{1}{4}$ of a grain ;

to be taken three times a-day. Strong mercurial ointment, one scruple, to be rubbed in over the scrotum night and morning. A mercurial plaster to be applied to each shin. Six days after admission, ptyalism was profuse, and the medicines, with the mercurial frictions, were in consequence omitted ; the testicle was much softer and diminished in size.

On the fifteenth day after admission, the testicle had become reduced to its natural size and feel ; the hardness of the chord, as well as its tenderness, no longer existed, and the epidydimis could now be distinctly felt, separately from the body of the testicle. Having visited the patient at intervals, we had an opportunity of observing the gradual alteration which took place from day to day in the enlarged testicle under the influence of the mercury. The ptyalism continued for nearly a fortnight, although, as before stated, the remedies were omitted ; the periosteal swellings of the tibia and pains of the limbs were removed under the influence of the mercury.

Case 2.—When simple chronic enlargement of the testicle co-exists with effusion of serum into the tunica vaginalis, as in the following case, the disease is aptly enough termed *hydro-sarcocele*.

R. S., 32 years of age, a shoemaker, of sallow complexion and unhealthy aspect, admitted on the 23d of August into King's Ward, under the care of Mr. Green. The right testicle had been enlarged upwards of five months ; it swelled gradually, without pain ; there had been no injury to the part, and the patient stated that he had not suffered from any venereal disease for twelve months previous to the swelling of the testicle. At the time of admission, he complained of slight obstruction to the passage of his urine. The testicle was found on examination to be as large as a moderate-sized double fist, very hard on the back part and sides, but on the fore part slightly elastic, there being apparently some effusion of fluid within the cavity of the vaginal tunic. There was slight thickening and induration some way up the chord, and the natural line of distinction between the body of the testicle and the epidydimis was obliterated. This patient complained of little pain in the part, and it was not very tender to the touch.

Mr. Green directed *one grain of calomel*, with a *quarter of a grain of opium*, to be taken twice a-day. Twelve leeches to be applied to the testicle, and afterwards an evaporating lotion.

27. Repeat the leeches.

29. Repeat the leeches; mouth becoming sore.

Sept. 6. Ptyalism profuse; the testicle greatly reduced in size, and much softer. Omit the pills.

19. Testicle not much larger than the opposite, and of natural feel. Mr. Green directed a mercurial plaster to be applied over the scrotum, and the patient left the Hospital on the following day.

ENLARGEMENT OF THE TESTICLE FOLLOWING ACUTE INFLAMMATION, CURED BY MERCURY.

It sometimes happens that the testicle remains permanently enlarged after an attack of acute inflammation, lymph being in this case deposited in the connecting cellular tissue, as in the more slow forms of disease described above. The successful employment of mercury in simple chronic enlargement of the testicle, induced Mr. Tyrrell to employ it in a case where the swelling existed as a sequela of acute disease. The patient, a young man, had been affected with gonorrhœa and swelled testicle about six months prior to admission. The testicle remained enlarged after the inflammatory symptoms had subsided. When admitted, it was twice its natural size, and very hard. He was submitted to the action of mercury for upwards of three weeks, and the testicle gradually diminished in size and hardness; it did not, however, totally regain its healthy feel.

CHRONIC ABSCESS, WITHIN THE BODY OF THE TESTICLE,

Followed by protrusion of its substance, constituting the disease called Superficial Fungus.

The true pathology of that disease which is called *superficial fungus* of the testicle, consists in the formation of a small abscess within the body of the testicle, which, bursting externally, leaves an ulcerated opening, at which a fungus gradually arises. This fungous excrescence is the glandular substance of the testicle itself, enlarged by interstitial deposition, and forcing its way through an aperture in the tunics, from the pressure which its increased bulk sustains; it is to this fungous protrusion that the term *superficial fungus* is applied in contradistinction to malignant fungus, to which it bears no alliance. The treatment adopted at these hospitals may be stated generally as follows:—Where the greater portion of the testicle has protruded, and the remaining small portion is in that state that its secerning powers may fairly be supposed to be destroyed; and when from the long continued suppurative process, the integuments of the scrotum around the base of the fungus have become much thickened, in such cases the testicle is extirpated. In other cases, where there is less extent of disease, the treatment employed is to excise the protruding fungus, pare and bring the edges of the scrotum in contact, or to apply an escharotic to the fungus, and subsequently when the slough is thrown off, to use pressure by means of strips of adhesive plaster. Mr. Travers' general practice is to employ pressure, and certainly, in the numerous cases which we have observed under his care, with much success.

The following are notes of several cases of this disease, in which the separate modes of practice mentioned above were adopted:

GUY'S HOSPITAL.

Case 1. *Extirpation of the Testicle.*—J. B., a middle aged man, admitted under the care of Mr. Morgan. The patient stated, that the left testicle had been enlarged upwards of two years, but that about seven weeks prior to his admission, having received a severe blow, the integuments of the scrotum ulcerated, a small quantity of matter issued, and shortly after, a fungous excrescence began to sprout from the ulcerated aperture. It was found on examination, that the principal part of the testicle was protruding, in the form of a fungous excrescence on the fore part of the scrotum; the integuments surrounding the base of the fungus were much indurated. The testicle was removed, and the fungous growth was found to originate from the body of the testicle; there was an aperture in the coats, at which the fungus had protruded. That portion of the testicle which remained in the scrotum was so much altered in structure, that it was only a slight portion at the back part in which the original texture could be defined.

GUY'S HOSPITAL.

CASE 2. *Excision of the Fungus.*—C. W., ætat. 46, admitted under the care of Mr. B. Cooper, with disease of the right testicle. The account given was, that nine months previous to admission he received severe injury to the testicle; that in consequence thereof, it enlarged, and after continuing for some time in this state, the integuments of the scrotum ulcerated, and a fungus appeared at the aperture, which went on gradually increasing in size. When admitted, there was a firm and almost insensible fungus of the size of a walnut, protruding through the integuments of the scrotum, about midway on the right side; the surrounding parts were much thickened and indurated. The arsenical solution was applied for a few days, but at length Mr. Cooper excised the tumour on a level with the scrotum, pared the indurated edges of the integuments, and brought them in contact with strips of adhesive plaster. The patient was shortly dismissed from the Hospital, well.

ST. THOMAS'S HOSPITAL.

CASE 3.—*Excision of the Fungus.*—J. W., ætat. 39, admitted on 22d of June, under the care of Mr. Travers. The testicle had been swelled six months, and ulceration of the scrotum had existed for about six weeks; the protruding fungus was of the size of a pigeon's egg. There was no account of injury done to the part. The fungus was cut off on a level with the scrotum, two days after the patient's admission, and the wound dressed with a piece of dry lint and strips of adhesive plaster. Considerable hæmorrhage ensued, to stay which caustic was applied, and this produced a slough that separated under the use of poultices. The strips of plaster were again firmly applied, and under this treatment the patient was dismissed, *cured*, in the course of a month.

GUY'S HOSPITAL.

CASE 4.—This case differs from the preceding, inasmuch as the fungus had spontaneously sloughed previous to the patient's admission, and he had, when admitted into the Hospital, merely an indolent ulcerated opening on the forepart of the scrorum.

J. W., æt. 30, admitted into Job's Ward on the 11th of July, under the care of Mr. Key. This man stated, that he had laboured under slight enlargement of the testicles for a considerable time, but about six weeks prior to admission he received a violent blow on the part, after which it swelled rapidly and became painful, continuing in this state for some time. At length the skin of the scrotum became discoloured, ulceration ensued, and a small quantity of matter escaped; a fungous growth soon after took place at the ulcerated aperture, but in the course of a fortnight it sloughed of its own accord and was not reproduced. When admitted there was an ulcer of the size of a shilling, about a third of the way down on the right side of the scrotum; it extended through the integuments, but a probe introduced only passed a slight depth; the ulcer was covered with a yellowish slough and was devoid of granulations. The integuments, to a considerable extent around the opening, were much thickened and indurated, and adherent to the body of the testis, which was much smaller than natural. The opposite testicle was very hard and enlarged, and on its upper surface there was a very large and indurated swelling, apparently within the cellular tissue, lying upon the anterior surface of the testicle.

The treatment pursued was as follows: a lotion, composed of twelve drops of muriatic acid, with six drops of nitric acid and two ounces of water, was applied by means of lint to the ulcer, and over this a linseed meal poultice was put. A tonic mixture was prescribed, as the patient appeared to be weakly, and subsequently five grains of Plummer's pill given at bed time. A report made one month after admission states, that the ulceration had materially lessened; the acid lotion was at that time discontinued, and the nitric oxyde of mercury (red precipitate) applied with poultices. A fortnight afterwards the patient left the Hospital quite well.

CASE OF TRUE SCIRRHOUS OR CANCEROUS DISEASE OF THE TESTICLE.

The following is a well-marked example of true scirrhous disease of the testicle—a disease which, we are informed, on the authority of Sir Astley Cooper, is "extremely rare."

W. Elliott, 45 years of age, of fair complexion and healthy appearance, was admitted under the care of Mr. Key, on account of a hernial tumour on the left side. It appeared, from the patient's statement, that he had been the subject of hernia from his childhood, the gut frequently descending and being again easily returned. About five days, however, previous to his admission into the Hospital, he was pursuing some very laborious employment, when the intestine came down and formed a tumour of much greater magnitude than at any former period; finding himself incapable of reducing it, as he had ordinarily done, he applied to a surgeon, who made various ineffectual attempts at reduction by means of the taxis. The tumour was of large size, the integuments inflamed; it was tense, but slightly elastic, and tender on pressure; it dilated on coughing, and the abdominal ring was apparently much enlarged. The testicle was felt at the back part of the tumour, greatly increased in size and very hard; the patient said, that he had perceived the testicle to be enlarged for some time past, and had experienced a dull aching pain therein.—With respect to the hernia, for which he was admitted, there were no constitutional symptoms indicative of strangulated intestine; he had passed his motions freely, until the day before his admission; he had no sickness, or anxiety of countenance. Under these circumstances the dresser in attendance (Mr. Randell) very properly desisted from any further manipulation of the tumour, and directed the application of leeches, with the subsequent use of fomentations, which were productive of much relief. In the evening Mr. Key saw the patient, and the tumour being now much less inflamed and painful on pressure than at the time of admission, he succeeded in reducing the hernia; but there was still a very large swelling in this side of the scrotum, as compared with the opposite, and this was found to be occasioned by the testicle, which was very much increased in size and of a stony hardness, being somewhat irregular on its forepart. The epididymis was much enlarged, especially at its upper part, where it was rather tender on pressure; it was, however, uniformly of equal hardness with the body of the testicle, from which, it remained perfectly distinct. The patient remained in the Hospital about three weeks, in order to have the opinion of Sir A. Cooper, (the *nominal* consulting surgeon) and during this period the tumour of the epididymis enlarged and assumed a tuberculated feel on its upper part; the man's general health too was evidently becoming affected; the glands in the groin were unaffected. Sir A. Cooper having seen the patient, decided on the propriety of removing the parts by an operation, which was accordingly performed on the 18th of March. The man left the Hospital on the 24th of April quite well.

A section of the testicle and tumour of the epididymis clearly showed the disease to be of a *true* scirrhous nature. During the performance of the operation, the hernial sac was exposed and laid open, and it was found that it had become imperforate just above the external ring, so that a radical cure had been effected, *quasi, scrotal* hernia, by the adhesions produced under the inflammatory action set up in the tumour.

[For many interesting particulars of this case we are indebted to the intelligent dresser, Mr. Randell.]

WINCHESTER COUNTY HOSPITAL.

DEATH PRODUCED BY AN ENLARGEMENT OF THE TONGUE.

Thomas Forder, æt. 46, a labourer, was brought to the Hospital in a most deplorable and exhausted condition, about one o'clock in the day, with a prodigious enlargement of the tongue. His appearance was really frightful; the tongue having enlarged three times, at least, its natural size, it projected from between the teeth, and completely distended the lips and mouth. It was not in any way discoloured except near its apex, which was rather livid, apparently from the pressure of the teeth; a quantity of very viscid saliva constantly dribbled from his mouth; the countenance extremely dejected; pulse 120, and very feeble. The respiration (which was not so much impeded as might have been expected) was performed entirely through the nostrils, the mouth being so completely occupied by the tongue as to render the patient incapable of the most indistinct articulation. The enlargement appears to be unattended with pain, except the sensation of distention. When questioned, he refers, by placing his hand on his head and chest, to great uneasiness in those parts. His wife, who accompanied him to the Hospital, gave the following account of the commencement of the complaint:—Her husband returned home from his work apparently in good health, about eight o'clock on the preceding evening; prior to his retiring to bed, he complained of an uneasy sensation about his tongue, as if it felt sore, which he attributed to a slight cold. About five o'clock on the following morning he awoke from a sound sleep in a state of considerable agitation, when he said he was convinced that his tongue was very much swollen; his speech appeared to be much affected. After some little time, he was induced to lie down again, when he slept uninterruptedly until eight o'clock, by which time the size of the tongue had so much increased as entirely to prevent his speaking. A surgeon was sent for, and advised his being immediately removed to the Hospital.

Ten o'clock.—On his admission to the Hospital, Mr. H. Lyford attended, and directed that as many leeches as could be made to adhere should be immediately applied to the tongue, and 5 grains of calomel, and ℥iss of cathartic mixture, to be taken directly. The medicine was administered by insinuating it gradually between the corner of the mouth and side of the tongue; it was swallowed without much difficulty.

Two o'Clock.—The aperient medicine has acted copiously four times: twelve leeches only could be applied, but the bleeding was rather copious, and continued for some time. The patient has taken some beef tea and milk, which were exhibited by an elastic tube through the nose.

Five o'Clock.—Mr. Lyford visited the patient, and found the enlargement still undiminished; made three very deep and extensive incisions into the substance of the tongue, one on the dorsum, and two laterally; the patient did not express the least pain at the operation. The hemorrhage which followed the incisions amounted to six ounces, and subsided spontaneously. Ice to be constantly applied over the part in a bladder.

Nine o'Clock.—No relief has been afforded by the operation, the enlargement remaining exactly the same. The glands under the jaw have become excessively enlarged, and there is a general puffiness of the whole neck. The patient so much exhausted as to be unable to bear the loss of more blood. Ordered a large blister to be applied under the jaw; the ice to be discontinued; the strength to be supported as much as possible by beef tea, milk, and arrow root.

Second day, ten o'clock A.M.—The enlargement of the tongue as before. Patient has passed a quiet night without sleep, but he is evidently sinking. Surface of the body bedewed with a cold perspiration, though the respiration is not more impeded than on his admission; pulse small, feeble, and extremely quick; countenance expressive of the greatest anxiety, the features quite collapsed. The blister has produced large vesications; the swelling of the neck has not increased. Patient perfectly sensible; the extremities cold. Ordered bottles of warm water to be constantly applied to the feet and stomach; warm brandy and water to be exhibited occasionally, with a solution of ammonia, in camphor mixture, to be given every hour.

Four o'clock P.M.—The patient expired about a quarter before one o'clock, and was sensible until within five minutes of his dissolution, the tongue having neither diminished or increased in size from his first admission.

On a minute dissection of the body being made, no unnatural appearance could be detected, which could tend to explain the origin or nature of this singular disease; in fact, every part presented a healthy appearance.

THE LANCET.

London, Saturday, October 6, 1827.

The Medical Session has now commenced, and we embrace the earliest opportunity to direct the attention of Students to the cruel and oppressive prosecution of Mr. William Cooke, a gentleman who only a very short time back formed one of their own body, and, like themselves, was assiduously occupied in learning the principles of his profession. His assiduity, however, has experienced a singular reward, for having by his natural talents and industry accumulated a considerable store of professional information, he embarked in the laudable undertaking of communicating it to others; and having been detected in availing himself of the only means by which he could render his instruction either efficient or satisfactory, his house was ransacked by constables, he was prosecuted, nay, indicted as a felon; was torn from his family, tried, convicted, and sentenced to pay a fine of *one hundred pounds*. It is difficult to believe that such things as these could have happened in a country calling itself civilized, yet such is the lamentable fact. The case ought to have roused the entire profession from their disgraceful slumber, and urged them to seek for some legislative measure, which might afford them protection whilst pursuing their anatomical studies. If it can be shown that a knowledge of human anatomy is attainable without human dissections, then we will say, let the body be held sacred from the mutilations of the scalpel; on the other hand, if a knowledge of anatomy is essential to the public health, and if we are acquainted with no other means by which it can be procured than human dissections, it is the duty of persons holding such opinions to encourage, by every means in their power, those who have the boldness to carry them into execution. It would appear, from the manner in which judges, coroners, barristers, and the public in general speak of exhumation and dissection, that these occupations are not only profitable, but exceedingly amusing to those who are engaged in them. Some people cannot believe that the process of dissection is the most loathsome and disgusting drudgery to which the mind can be subjected, and that nothing but an anxious desire to be of service to the living, could ever induce any man to mutilate the dead. Who dissects the human body from choice? No one. It is never undertaken but from a conviction of its necessity. If all the teachers of anatomy were to experience the same punishment as Mr. Cooke, the cultivation of medicine in this country would be at an end, and in a few years surgery would be reduced to what it was when the science was exclusively in the hands of the monks.

Although the amount of the subscription for Mr. Cooke is considerable, (£209.) yet it falls short of what we anticipated; but the sum simply is not all, the approbation of such a long catalogue of highly respectable and scientific gentlemen, must prove much more consolatory to the wounded feelings of Mr. Cooke, after the base attempt that has been made to destroy his character, than fifty times the amount.—Conceiving that the gratification he may experience from the subscription might be in proportion to the number and respectability of the subscribers, we have kept the books open until the present period for the purpose of affording the Students of the various medical classes an opportunity of adding their names to the list of those gentlemen who consider that Mr. Cooke is a persecuted man, and that he ought to be protected from the malice of his enemies. We are sure that this appeal to the warm and generous hearts of the Pupils will not be made in vain. Mr. Cooke but a little while since entered on his professional career with prospects as bright and as flattering as their own; his zeal brought upon him the persecuting hand of prejudice, and his ruin was nearly complete. The Students know not how soon they may be the victims of similar bigotry and malice, let them therefore step forward quickly, and assist in raising the oppressed; further, we would have them bear in mind, that by protecting Mr. Cooke, they furnish *themselves* with the most substantial shield against similar prosecutions.

The concourse of members of the medical profession at St. Bartholomew's Hospital, on Monday last, was unprecedented: surgeons, physicians, students, and apothecaries, all appeared anxious to catch a glimpse of that extraordinary phenomenon, the INFANT ANATOMIST, the "straight-forward" son of a tortuous father. It was the general opinion that a disturbance of a very serious description was unavoidable, expressions indicative of the greatest disgust and indignation, at the disgraceful trickery that has recently experienced so signal an exposure, were every where uttered, and even the most staunch friends of the chief culprit could only say in extenuation, that he was an "old man, and it was natural that he should be desirous of providing for the future success of his child." These people, however, seem to forget that love of offspring is a mere animal feeling, and when uncombined with love of justice, is often productive of the greatest iniquity. The infamous manner in which Mr. Lawrence has been treated, was spoken of unreservedly, and in the severest terms of reproach. It was asked, at the same moment, by twenty tongues, "how Mr. Abernethy could state, that he saw no person in the Hospital *willing* and *competent* to lecture, except STANLEY, when no offer of the lectures had been made to Mr. LAWRENCE, whose willingness, therefore, or unwillingness, had not been tried?" No answer of any kind was returned to these questions.

By one o'clock the square of the Hospital was crowded, every person seemed to anticipate that there would be an uproar in the theatre, yet no one could say of what character, or what would be the result. Hosts of pupils declared, that unless Lawrence lectured they would not remain there; and many of the old ones threatened, that the lecture should not proceed if Mr. LAWRENCE were not appointed; such was the aspect of affairs shortly before *two.* Meanwhile, the Abernethian party was not inactive; its emissaries were distributed in various directions, and urging the pupils to refrain from any act of disorder or violence, alleging "that it was to be Mr. Abernethy's last year, that the Committee of Governors had announced if any riot were to occur in the Theatre, they had resolved on closing it for the season; that as they had *confirmed* the appointment of Mr. Abernethy subsequently to their detection of the bonds, they were bound in honour to respect an arrangement which they had themselves made." These statements, coming as they did from gentlemen of great respectability, and who were supposed to be well acquainted with the feelings and intentions of the Governors, produced a powerful impression; and the propriety of the resolution of the Committee, was universally admitted—but how to avert the threatened storm, was a consideration of some difficulty; at length the Abernethians posted a notice on the doors, stating that the lecture would *not commence* until HALF PAST TWO O'CLOCK! Mr. LAWRENCE, with his characteristic generosity, and apparently forgetting the wrongs he had received at the hands of the individual whose extraordinary conduct had been the cause of all the excitement, appointed *two o'clock* for the performance of an operation in the other theatre, and whilst that gentleman was thus engaged before an assembly of some hundreds, Mr. Abernethy entered the anatomical theatre, which had been previously filled with those in the secret who were anxious to preserve order, and repeated his *thirty-five-year-old* lecture. When the gentlemen who had witnessed Mr. LAWRENCE's operation visited the anatomical theatre at a *quarter* or *twenty minutes* past two, they could gain no admittance, and the lecture was considerably advanced; at first they were exceedingly indignant on discovering the manner in which they had been duped, but soon acquiesced in the propriety of the measures adopted, and all agreed, after the intimation given out by the Governors, that any thing like riot or disorder would not only prove disrespectful to the Governors, but was likely to be attended with the most pernicious consequences to the students. It was generally felt, that if the first lecture could be got over quietly, that the others would be allowed to proceed as smoothly as ever, which has proved to be correct.

It is impossible that we can feel otherwise than highly gratified at observing the extraordinary sensation which our exposure of the trickery that has been practised at this Hospital has produced. There does not appear to be the slightest difference of opinion as to the character of the intrigues and bonds, concocted with a view to secure the elevation of the INFANT ANATOMIST. The vile and dirty bargains were spoken of with disgust. But the attempt to perpetuate Mr. LAWRENCE's exclusion from the lecturer's chair, was every where denounced in unqualified terms of execration. The three fatal words in Mr. Abernethy's letter, "*willing and competent,*" appear to have silenced those who recently were the most boisterous of his adherents. Not a syllable do they advance either by way of explanation or justification. In truth, to do his friends justice, they seem not to understand the meaning of th passage, and express their astonishment that Mr. ABERNETHY should have written any thing so exceedingly unintelligible. But they may be assured that it was not set down without thought, and its intelligibility is sufficiently obvious. It was written with no other intention than to induce the Governors to believe that the lectures had been offered to Mr. LAWRENCE, implying at the same time that Gentleman's *unwillingness* to accept of them ; hence there was an *excuse* for the selection of Mr. STANLEY. Mr. Abernethy's friends either are, or pretend to be, incapable of explaining the cause of Mr. Stanley's appointment to the anatomical chair, in preference to that of Mr. LAWRENCE. Here again the apparent riddle can be solved without difficulty. Stanley was just the supple creature that Abernethy wanted ; he could perform the dirty work connected with the " bargainings" and " bonds ;" the light too of the INFANT ANATOMIST stood a better chance of being brilliant by the side of a body of darkness, than in the presence of such a luminary as LAWRENCE. If a man be desirous of plugging up a tortuous passage, he does not select a piece of sterling unyielding oak, but pounces on a lump of clay, that he can moisten, spit upon, and mould and fashion so as to suit the various crevices of the filthy avenue.

As an instance of the disappointment felt by the pupils at the non-appointment of Mr. LAWRENCE to the anatomical chair at St. Bartholomew's, a party of six (from Yorkshire,) immediately after the termination of Abernethy's lecture, quitted that Hospital, and the whole of them entered to the lectures and practice at Guy's.

SUBSCRIPTION

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Manual of Pathology ; containing the Symptoms, Diagnosis, and Morbid Characters of Diseases : together with an Exposition of the different Methods of Examination, applicable to Affections of the Head, Chest, and Abdomen. By L. MARTINET, D.M.P., *translated, with Notes and Additions, by* JONES QUAIN, A.B. *Demonstrator of Anatomy at the Medical School, Aldersgate-street.* SECOND EDITION, *revised, with additional Notes.* 12mo. pp. 298. London, 1827. Simpkin and Marshall.

THE system of General Anatomy, which was developed by the stupendous genius of Bichat, has been made the ground-work of this admirable treatise on Pathology, which, in its original state, must be well known to every one conversant with the foreign literature of his profession.

The author, in the most systematic way, after explaining the method of examining disease, as applicable to every case, proceeds to consider the mode of investigation necessary in particular instances.

Thus, in examining diseases of the brain, he investigates the state of

The Intellectual Faculties,
Sensitive System,
Locomotive System,
Digestive System, &c.

And in this scrutinizing way, in which it would be impossible for any thing to escape observation, he shows the most certain method of detecting disease in the thorax and abdomen, and afterwards in the primary tissues. He then enters into a minute description of alterations of structure themselves, explaining in a very minute, correct, and satisfactory manner, the connexion between the symptoms and the morbid physical result, and thus throws a light on the most difficult part of the practice of medicine—the art of diagnosis.

The elegant translation of this Manual by Mr. Quain, already so well known to the profession as the Demonstrator of Anatomy in the Aldersgate School, has been enriched throughout with many judicious and original observations.

In this improved state, the work is eminently calculated to supply that deficiency in the study of pathological science, which has long been experienced in this country, where, singular to think, the ill-arranged, and, in very many points, greatly deficient work of Baillie, is the only system of pathology which has yet appeared.

That general anatomy is the only solid basis on which a work on pathology can or ought to rest, Mr. Quain thus forcibly expresses his conviction :—

"As, in consequence of their striking similarity in structure, properties, and anatomical characters, these membranes are ranged under one head, and form one class, so their diseases should also form one group; on the obvious principle, that the more close the similitude between parts in their structure, fuctions, and characters, in health, the more nearly will they resemble one another in the changes induced by disease.

"These considerations point out some, at least, of the advantages of studying general anatomy—they indicate, at once, a mode of arranging diseases according to a natural method, by grouping them together according to their mutual affinities, and thereby introducing into medicine those rigorous methods of investigation, which have already effected so much for other natural sciences, particularly botany and zoology."

After lamenting the want of any English work on general anatomy, the author gives the gratifying intelligence, that he is now engaged in one that will speedily appear; which, considering his cultivated mind, and his great knowledge of every department of anatomy, will doubtless become a standard book.

Of the many original notes of the translator, those on the digestive organs, and on the best method of opening dead bodies, are peculiarly good.

From his account of accidental developments, we extract the following interesting information on the extirpation of cancerous lips :—

"In extirpating cancer of the lip, Dupuytren, instead of removing a triangular portion, and then uniting the cut surfaces by suture, in some cases makes a semilunar incision, so as to remove all the hardened part, and then covers the surface with simple dressing; after a while, there is scarcely any perceptible loss of substance, as the margin of the lip rises up nearly to its natural level. This plan of proceeding is particularly applicable to cases in which the breadth of the diseased part is greater than its depth; for instance, when it extends across the whole lip. This operation is practised on the principle, that cancer being an accidental production, developed in the part, compresses and forces back the adjacent substance in proportion as it grows; consequently, the substance of the lip can restore itself to its original position, when, by the removal of this new growth, the compressing power is taken away."

Many of Mr. Quain's opinions on the formation of diseased structures are evidently the result of much experience and minute observation, and every where betray that their author possesses powers of perception of a high order, and that his mind is one of a very philosophic and logical kind.

For their excellency, we select the following observations on inflammation of the arachnoid membrane of the spinal column.

"Though authors so constantly speak of inflammation of the arachnoid membrane, still anatomy has not yet been able to discover any vessels in its tissue. Ribes and Ollivier are of opinion that the seat of the inflammation is not in the arachnoid of the spine, but in the dura mater, which receives a great number of vessels, in the pia mater, and in the vessels of this latter membrane, which penetrate into the substance of the medulla. Hence they account for the red tinge and thickening (which are reported by different persons as having been observed in the arachnoid) by attributing them to injection of the vessels of the other membranes, and infiltration or thickening of the sub-serous cellular tissue. Inflammation of the membranes of the medulla spinalis, very frequently extends to those of the brain. The symptoms of both affections are therefore usually found united; however, there are two which may be considered pathognomic of arachnitis of the spine—the first is a general contraction of the posterior muscles of the trunk, producing a complete opisthotonos As this has been observed in cases where examination has demonstrated an inflammation of the arachnoid of the spine, that of the brain being free from any such affection, it may be regarded as diagnostic of arachnitis spinalis.—The other symptom is pain extending along the spine, but more particularly referred to some parts of it."

M. Martinet's work, which was at first intended principally as a clinical guide, has thus, from so many additions both by the author and translator, been converted into a complete though concise system of pathology; as its arrangement is in the highest degree good, and as its details are every where correct, is well adapted to fill up that deficiency in the study of pathology, which has been so long experienced in this country by every one at all advanced in the knowledge of medicine; and whethor as a book of reference to the practitioner, or guide to the student, is undoubtedly one of the greatest value.

"THE YELLOW" JOURNAL.

Parturiunt montes et nascitur ridiculus mus.

Another fungus has sprung from the earth, filled with the same heavy materials which have ever characterised the humble pages of the bat journal. The knowing ones in the profession seem fast to be deserting this abortive child of a tory band, and two only of those "hole and corner" men, whose names were wont to deck the Gothic structure, have had the boldness to step forward in the present number, to prop its reputation with the authority of their empty titles. The communications, too, such as they are, bear evidently the marks of much labour in their manufacture, and several of the cases have been dragged from the abyss of time, where they had long slumbered in inglorious oblivion, to vegetate a short existence on the surface of the fungus: but, alas! their career is fixed; they will soon be again consigned to the limits of the tomb!

Foremost, among the "original" papers, appears one from the pen of Mr. Babington which drew its first breath in that *abode of vice*, "the Lock;" from which, ample as the opportunities are of studying syphilitic disease which it affords, this part of medicine has not for many years derived a single improvement, and from which none can be expected to emanate, till a key be found to open its well-secured doors to the public.

The observations of Mr. Babington on sloughing sores, several cases of which he detailed in a former number of "The Yellow," exhibit throughout the highest degree of confusion; and we much doubt if any one, not even the anthor himself, could practically make those distinctions in the appearance of the sores, necessary in adopting those plans of treatment which he recommends—distinctions drawn principally from the uncertain and variable *colours* of an ever-changing hue. But supposing it, for a moment, possible to distinguish them with certainty, the treatment recommended to be pursued is mostly contrary to the experience of the standard authorities on the subject. In following up his remarks, with the view of showing the propriety of his plans of cure, and inculcating the efficacy of mercury, which, in certain *coloured* cases of sloughing sores, he conceives to be the *sine quâ non*, he has made some most erroneous statements as to the powers, and *modus operandi*, of this dangerous medicine. Thus he states—

"That mercury will depress arterial action with no less certainty than antimony; and these depressing effects are no sooner felt in the system, than the skin surrounding the ulcer loses its bright florid hue, the tumefaction subsides, and the sloughing ceases to spread. This sore presents no difficulty. The effect of the remedies is almost always uniform, and nothing but an unfounded dread of mercury on the part of the surgeon can perplex the treatment, or affect the facility of the cure. *It may be assumed as a principle, that as long as acute inflammation exists, mercury never either occasions or aggravates sloughing*" *!!!*

Passing over this precious production, in which Mr. Babington makes distinctions where no difference exists, and where the most pernicious practice is held up in false colours, we come to another "original" from the pen of Mr. Brodie, who has detailed under the head "diseases of the testicle" a few cases of that well known occurrence, effusion of blood into the tunica vaginalis, in general arising from external violence, a species of lesion with which every one must have been well acquainted from his boyish years. These, gentle reader, were cured, as might be expected; and by doing what? why simply opening the vaginal cavity, and discharging the foreign contents. They are, however, considered to be of so great consequence by this modern monk, that he searches the records of times long gone by, and drags to light one which occurred in the year of our Lord 1815!! With these he makes up a case "in which," he says, "there was *reason* to believe, that the patient had laboured under a hæmatocele of long standing, and in which the glandular structure of the testicle had disappeared, *probably* in consequence of long continued pressure of the extravasation." This appears to be, however, any thing but a case of hæmatocele. If any inference could be drawn from the meagre description given, it would lead us to suppose it to be one of fungus hæmatodes of the testicle.—These are the ingredients which form the *composing* compound, which is dignified with the name of a paper "On *Diseases* of the Testicle." To use the language of "extra limites," Jemmy, who seems to have no liking to the *Georgians*, we exclaim, "Ah Brodie! Brodie! hide thy diminished head."

Fast on the heels of Brodie follows the nimble Rose, who after much preliminary blarney, in which he enuuciates the truism that "exercise properly regulated has a great influence in developing the animal body; but if carried to excess, it may produce bad consequences"!!! relates a case of injury of the ancle joint, where he says the epiphysis of the tibia was separated in consequence of a young lady having repeatedly rested the whole weight of her body on the "*ball*" of her foot, which was followed by extensive suppuration, and terminated at length in the death of the patient.

We never heard of a case where the epiphysis of the tibia was separated in this way before, nor can we see on what anatomical view of the structure of the ancle joint, Mr. Rose could arrive at such an absurd conclusion. The case was, in all probability, one of laceration of those numerous aponeuroses which bind down the extensor tendons, followed by a high degree of inflammation, and consequent suppuration. Nor can we understand on what sound surgical principle Mr. Rose could allow this young lady to sink, when amputation would in every likelihood have saved her life.

Mr. Taylor relates a case of "*Stricture*" of the œsophagus, which turns out to be one of spasmodic affection of the muscular coat, arising from inflammation and ulceration of the mucous membrane. This is described as an instance of permanent stricture, and seems to have been treated as such by the use of the bougie, which invariably rendered the symptoms more severe. Unless it be to show the difficulty of diagnosis, or to fill up a vacuity in the "yellow," we are at a loss to conceive what the account of the ease is intended for.

Besides these *novel* and splendid papers is one from Mr. Boyle, in which he details two instances of stiff knees benefited by the use of the moxa, and one from Mr. Stafford giving an account of a *new* and *dangerous* method of piercing strictures of the urethra; and the highly "original" Yellow, concludes with the splendid discovery announced in a paper on the method of feeding madmen, "that food can be conveyed into the stomach through œsophagus tubes!!! but that Read's apparatus is rather large for the purpose"!!!

Sic transit *gloria mundi*.

PROHIBITION OF THE EDINBURGH SURGEONS TO PRACTISE PHARMACY IN LONDON.

SIR,—Among the host of grievances entailed on the profession by this ill-fated Apothecaries' Act, perhaps the following is not the least; viz. that of a member, or, more properly speaking, a licentiate of the Royal College of Surgeons of Edinburgh, being prohibited from practising in London as an Apothecary! Now, Sir, it is well known that the Edinburgh College, in the course of study prescribed by them for their diploma, have embraced every branch of medical science to be found in the regulations of either the College or the Hall here; but in Edinburgh three years of apprenticeship are received, instead of five, as in London. In the examination at the former place, the subjects of chemistry, materia medica, and pharmacy, are frequently more particularly attended to than anatomy and surgery; but still a further grind from the London Apothecaries is indispensable, that these sages may have proof positive whether or no he be really capable of wielding the pestle, or applying the stomach pump. Intending to submit myself to this sine qua non regulation I called at the Hall, but was not a little astonished when told, that from having only served three years of apprenticeship (their Act expressly specifying five) I could not be taken on trial. These worthies may tell us, that they have issued regulations which must be obeyed, and that an Act of Parliament cannot be infringed on, with many other such things; but, Sir, let us picture to ourselves the case of a person of the Edinburgh school, who has served in his Majesty's service for a time, and on retiring finds it expedient to commence practice in the metropolis, he is informed that from being incomplete in the term of apprenticeship, he must first qualify himself for their examination by serving another two years behind the counter!! without which he cannot obtain the license of this privileged company to prepare a single bolus or an enema; such an absurd system of monopoly has not only the most injurious tendency, blasting the prospects of many an eminent member of the medical profession, but is an open insult to the Edinburgh College. Should you deem these remarks worthy a place on the page of THE LANCET, they may prove a means of rousing some to come forward and enlist under the banner of opposition, that the further obnoxious effects of this injudicious Apothecaries' Act may be counter-*acted*. I am, Sir,

AN EDINBURGH SURGEON.

[If a man chooses to *style himself* "*apothecary*," he comes within the power of the act, which he may avoid by adopting the name of *surgeon* or *chemist*.]

HOSPITAL OF SURGERY,

Panton Square, St. James's.

Third Report of the Case of Aneurismal Disease in the Temporal Arteries, in which MR. WARDROP *tied the Common Carotid Artery.*

THE great novelty of this case, the want of all data on which to found any certain opinion as to its limits or nature, and the interest which it has created among the more enlightened members of the profession, have induced us to watch its varied progress with a careful and attentive eye. Whether the case will ultimately terminate successfully or not, we shall not at the present moment presume to offer an opinion; but be the event what it may, it cannot fail to throw a light on the nature of a disease which has hitherto been wholly unknown.

At the time our last report was drawn, the patient was in a very dangerous state. He had been attacked, apparently without any cause, except, perhaps, that arising from improper diet or changes in the atmosphere, which it was impossible to regulate, with general febrile symptoms of a very aggravated nature; for these he was, on the ninth day, for the fourth time very largely bled; and after taking a large dose of opium, he passed a most refreshing night, and on the tenth day he had wonderfully improved, his pulse having sunk down to 100. Venous hæmorrhage had occurred daily since the operation, and there appeared to be little or no action going on in the wound to shut up the divided vessels. The tumour, though still large, had considerably subsided; he possessed a slight though distinct pulsation. On the eleventh day he complained of pain in the left eyeball and orbit—the vision of the eye was somewhat affected. He also experienced some degree of deafness. It was observed that he appeared to be remarkably drowsy, and he occasionally exhibited symptoms of a wavering state of the intellectual functions. On the twelfth these symptoms had increased; complete blindness and deafness had now succeeded, and he was affected with a degree of stupor bordering almost on coma, with occasional and slight delirium. His pulse, however, was only 88, and not full. Pupil of the affected eye remarkably *contracted*. On the thirteenth day, the stupor and delirium had subsided, but the blindness was undiminished, and the eyeball was found to be protruding from the orbit, with œdematous effusion under the conjunctiva, and in the palpebræ.

These singular and distressing symptoms gave rise to much speculation, as to the cause of their occurrence. Some *physiologists* ascribing them to a want of sensibility in the brain and its nerves, owing to a deficiency in the supply of its stimulus the the blood, and resembling that state produced in the lower extremities of the inferior animals, by a ligature of the aorta; or that loss of sensibility in the fingers of man, arising from an obstructed subclavian or humeral artery. Mr. Wardrop and Mr. Lawrence were inclined, however, to take a very different view of the symptoms, and to ascribe them to a morbid state of the brain itself, arising, in all probability, from an aneurismatic affection of those vessels of the dura mater which, by passing through the cranium, communicate with the superficial arteries of the head, forming, in fact, internally, a part of the disease which was so conspicuous outwardly, and thus by their enlargement exerting a powerful compression on the brain itself. This opinion was highly corroborated by symptoms afterwards noticed, viz. by the great protrusion of the eyeball, and by the circumstance that the thrilling pulsation was most observable in the centre of the tumour, at that point where the cranium appeared almost completely absorbed, and where, in all probability, the freest communication existed with the vessels supplying the membranes of the brain. Mr. Langstaff, we understand, informed Mr. Wardrop, that he once knew of a case of nævus maternus of the head, where the capillaries of the dura mater were similarly affected. The great freedom of anastomosis, which everywhere exists in the encephalon, and particularly at the circle of Willis, must, we should think, prevent all chance of deficiency of sensibility in any part of the brain, arising from a diminished supply of its stimulus, an effect which has never been observed in any of those numerous cases in which the common carotid arteries have been tied.

On the 14th day after the operation, every disagreeable symptom had subsided, except the protrusion of the eye ball, which is decidedly increasing. The tumour itself has diminished most perceptibly in size, and has lost in some degree that highly varicose and cellular appearance, which was so distinguishing a feature of the diseace on his first admission.

The patient has now fairly surmounted the dangers of the operation, and it only remains to be seen whether it will have had the desired effect, either of arresting the enlargement of the tumour, or of producing a complete and permanent cure of the disease. Here, therefore, for the present, we shall pause, hoping, for the sake of surgical science, to have to communicate, at no very distant period, the further progress of the patient towards a complete recovery.

EXTIRPATION OF MELICEROUS TUMOURS FROM THE SCALP.

Mr. Wardrop removed from the head of a young woman, by two operations, not less than six soft tumours of different sizes, according to the plan recommended by Sir Astley Cooper, viz. of first making an incision into the cyst, evacuating its contents, and then, by means of a pair of forceps, forcibly tearing out the parietes of the tumour.

The facility with which tumours of a certain size, and of a melicerous nature, can be removed by the method of the distinguished Baronet, and the slight degree of pain which it inflicts, were well exemplified in this case, and the wounds healed in a day or two, thus obviating the only objection to Sir Astley's method, the chance of suppuration from the laceration of the cellular structure.

CASE SHOWING THE BAD CONSEQUENCES ARISING FROM INATTENTION IN THE TREATMENT OF FRACTURES OF THE THIGH.

Fractures in the upper half of the thigh-bone, require in their management a degree of attention which few surgeons, who have not had repeated experience of the difficulties of treating them, are inclined to bestow. Hence it happens, that the instances are by no means few, where patients, applying at the different hospitals of the metropolis, to seek relief from the numerous distressing consequences, to which ignorance or inattention in their cure unnecessarily has subjected them. We have lately at this hospital had the misfortune to witness several cases of the greatest distortion of limbs, the consequence of careless or injudicious management of fractures of the upper half of the thigh bone. We select the following as a specimen, and because in it an attempt was made to remedy the lameness by an operation which we have not often seen practised.

The right thigh bone of a healthy man, 22 years of age, is distorted to so great an extent, that it describes a large segment of a circle. The bone, at one point, considerably above the middle of the thigh, projects outwardly to so great a degree, that it seems scarcely covered by soft parts, and the skin immediately above is inflamed and painful, and has the appearance as if speedily about to ulcerate. This projecting portion can be traced down to the femur, which forms with it nearly a right angle. The man, besides the great weakness he experiences in the limb, is almost entirely prevented from walking by the pain and severe inflammation of the integuments, which invariably come on after even gentle exercise. He states, that a year ago he suffered by a fall, a compound fracture of the thigh. The limb was placed in the straight position, and when he arose from bed, three months after the accident, he found himself in his present distressing condition. The fracture was probably one of a comminuted nature. Had the loose piece of bone been immediately removed, it would in all probability have prevented the necessity of the following

Operation.

Mr. Duncan made an incision fully three inches in length, extending through the vastus externus muscle down to the femur, and after exposing the root of the projecting piece of bone, which was extremely sharp, and nearly an inch and a half in length, with a large pair of bone plyers he cut it off. The edges of the wound were then treated in the usual way, and have united by the first intention. The patient has thus been cured of his lameness, but the deformity of his limb must during his life remain a monument of surgical disgrace.

ST. GEORGE'S HOSPITAL.

THROAT-CUTTING.

Often, of late, as it has been our painful duty to expose the mal-practices and numerous barbarous acts of the medical officers of the "Hospital of Wonders," we never proceeded to lay before the public details of a more disgusting or appalling nature, or to relate the circumstances of a case whose treatment affords such an instance of folly, as on the present deplorable occasion. Nor do we recollect ever to have felt such humiliating feelings for the honour of a profession, of which we are members, as the highly reprehensible proceedings which are now to come under review, have created in our breasts—proceedings which show, in a pre-eminent degree, the impropriety, we might almost say criminality, of those unnatural distinctions which exist among the physicians and surgeons in their conduct to one another, in this and some other of the bigotted metropolitan hospitals.

It appears, that some time ago, that aristocratic "fellow," Dr. Chambers, *ordered* one of the surgeons to perform tracheotomy in a patient labouring under an affection of the larynx, where the difficulty of respiration had almost amounted to suffocation. The operation was attended with immediate relief, and his life was considerably prolonged, although he afterwards, as generally happens in similar instances, fell a victim to his complaint.

With this case before his eyes, it immediately obtruded itself on the mind of the Cambridge professor, so well known for his original views in obstetrical science, and for his great discovery of the use of cupping in labour pains, that the principle of cutting throats might be extended, and might thus be made to supply a great desideratum in the healing art. At least, his Cambridge stores of knowledge informed him, that it would equal his former brilliant discovery.

To a mind determined to accomplish any great undertaking, opportunities are seldom wanting; and so it happened that an out-patient came to the Professor of medicine, complaining of severe dyspnœa, which had prevented him from laying down in the recumbent position for several weeks before, and which was so much aggravated by his walk to the Hospital, that the Doctor examined his complaint with all possible dispatch, and finding no disease of the lungs, determined to put his long-cherished opinions to the proof of experience.

Accordingly, at midnight,

"When weary mortals are at rest,"

the severity of the disease having increased, he was sent for, and determining to wait no longer, issued his mandate, commanding the presence of Mr. Rose. On his arrival, that great character received his *orders* to perpetrate instantly the horrid act of tracheotomy.

The surgeon was, however, a little restive; he doubted the propriety of the operation, as there was no disease in the air-passages above the point where the opening could be made, and he wished to have the opinion of his colleagues. The Doctor, however, informed him, that it was the duty of a *surgeon* not to *think*, but to *obey*. Mr. Rose, therefore, contrary to his own opinion, performed the *incision* of the poor man's throat. The patient was not, however, in the least degree relieved, except by dissolution, which speedily followed; and, lo! when dissection revealed the secrets of the dead, it was found that no disease existed in the larynx, but that the excessive dyspnœa had arisen from the pressure of a large aneurism of the aorta on the root of the bronchi!!!!

Having brought these *simple* facts to light, we offer no comment on Dr. Hewett's conduct; the best that can be said of it is, that it arose from an error in judgment.

But of the impropriety and imbecility in Mr. Rose performing such a hazardous operation as this, contrary to his own judgment, we have no words sufficient to express our disapprobation.

Mr. Rose, by this act, seems to consider a surgeon as a mere tool, a puppet in the hands of the physicians, to be used and set in motion as it pleases these luminaries.

ST. BARTHOLOMEW'S HOSPITAL.

NON-UNION OF A FRACTURED FOREARM—OPERATION OF RASPING, AND CONSEQUENT DEATH OF THE PATIENT.

E. B., a countryman, in the prime and vigour of life, was admitted under Mr. Vincent in consequence of the non-union of a fractured forearm. The history he gave of his case, was but ill-calculated to sustain respect for the surgeon's knowledge to whose care the fracture had been intrusted for the space of six months from its occurrence. The treatment, for the first month, consisted in the daily application of poultices, the arm reclining on a pillow. There does not appear any sufficient reason for the lengthened continuance of such suppurative treatment. If we may give credence to the patient's statement, (and is he not as worthy of belief as a surgeon?) there was no unusual tumefaction succeeding the injury, rather the reverse; no laceration of soft parts, not even abrasion of the integuments. On what principle, then, can be enforced such soft and tantalizing treatment? On no other that we are aware of, than the striking accordance existing between its nature, and the *ramolissement* of the surgeon's brain. At the expiration of a month, this *simple* and *soothing* treatment, having altogether failed in producing anything like union of the fractured bones, the arm was placed in splints, (somewhere about the time that they are usually taken off, the arm *then* being supported horizontally on a pillow,) but from the surgeon's over anxiety to ascertain whether this treatment was likely to be attended with a better result, he was constantly wriggling the fractured bones, and by this injudicious interference, dissipated all efforts at reparation. He persisted in this stupidly absurd and ignorant practice for five months. Finding, however, that no consolidation of parts attended it, and foiled in his attempts to procure the union of the fractured bones, he, at the end of that period, signed him over to the hands of a brother surgeon. The forearm was firmly rebound in splints, but as fate would have it, this man, too, was a follower of the wriggling doctrine. Three months did he bear with this "brother surgeon's" treatment, but, as we should anticipate, without obtaining the slightest benefit. The ends of the bones were as moveable on each other, as when the splints were first put on. Not disheartened, though distrustful of the wisdom of the country surgeons—indeed, he had good reason to be so—he forthwith set off for town, determined to try his fortune at a London hospital. On his arrival, he presented himself at St. Bartholomew's, and was admitted under Mr. Vincent. This was nine months from the occurrence of the accident. The bones of the forearm were fractured just below the attachment of the pronator radii teres muscle. They overlapped to the extent of half an inch. The ends of the bones stood rather obliquely to each other—the humeral extremities innermost. Is this to be attributed to the action of the pronator muscle, or the bungling manner in which they were *set,* or rather played with? Perhaps it might have been effected by concert. The ends of the bones were freely moveable on each other; they admitted of considerable lateral motion. He had the power of fairly extending the forearm; the muscles of the former were much wasted; the fingers were powerless; the whole hand œdematous. He was a fine, brawny, athletic man—a truly noble looking fellow. He much prided himself on his former feats of muscular power, such as taking a hundred and thirty gallon cask of cider on his knee, and drinking out of the bunghole. His countenance bespoke a hardy individual; his expression was unusually cheerful: he was the picture of perfect health. Mr. Vincent proposed to continue the use of splints in conjunction with pressure, which was to be effected with pads of linen laid beneath the splints, over the ends of the fractured bones. The pads to be wetted, from time to time, with the liq. amm. acetatis. This to be accomplished by instilling the solution through the interstices; the splints were not to be removed. At the expiration of a month from the adoption of this line of practice, there was an evident consolidation of parts, and we entertain not the slightest doubt but had this judicious surgical treatment been strictly pursued for another two months, that the fractured bones at the end of that period would have been firmly united. But like some other hapless mortals, it would seem that he was born under an ill-omened planet. No sooner were the splints removed, than the wriggling doctrine became the raging fashion. Not a day now passed, but some one of the dressers was thus ignorantly meddling with the patient's arm. The short space of one week was sufficient to disclose the sad result of such besotted ignorance. All the reparation that had been effected during the previous month, was now destroyed. The bones were as moveable as ever. Unfortunately, Mr. Vincent did not discern the reason of this change; he was quite unable to account for this rapid undoing of all that had been done—to him it seemed inexplicable. However, he directed a similar line of treatment to be persisted in for another month—pressure and absolute quiet of the limb. But how prettily were his orders obeyed; the infatuated dressers must interpose their wriggling doctrine; they soon began to din him about performing an operation; they even had the insolence to tell him, "that Mr. Lawrence would have done it long ago"—"that Mr. Wardrop would not have hesitated an instant." At the expiration of the month, as might readily be supposed, no reparation had taken place, Mr. Vincent became doubtful as to the propriety of persisting any longer in this treatment. He took the advice of his colleague, Mr. Lawrence, who gave it as his opinion that an operation offered the best chance of success. The understanding then was, that a seton would be passed. It must be observed, that Messrs. Vincent and Lawrence were ignorant of the tricks that had been practised. Had they been aware of them, nothing of the kind would have been determined on. If any operation had been undertaken, it would have been one of a very different nature—*severe reproof*.

On the Saturday, an operation, such as it was, was performed. It was understood that a seton would have been passed; but no, nothing of the kind took place. Possibly, a day or two after Mr. Vincent consulted Mr. Lawrence respecting the case, he might have entered a farrier's shop, a rasp might have struck his sight, when suddenly he bethought himself what an excellent instrument it might prove for exciting ossific action. Be that as it may, he performed on the man the operation of rasping. The ends of the bones were cut down on, a rasp interposed, and the extremities of the fractured bones well grated. What was the consequence? His was not a non-excitable system. No, no. The non-union of the fracture was not consequent thereon. That was attributable to besotted, ignorant, infatuated interference on the part of the dressers; but Mr. Vincent is fairly exculpated from all knowledge thereof. On the day after the operation, the wound looked irritable and inflamed; his night had been restless and disturbed. He was ordered some opening medicine.

On Wednesday his illness had increased to an alarming degree. The whole arm was swollen from phlegmonous erysipelas; his tongue was thickly coated, his pulse rapid; he was in a state of wild delirium. He had been largely bled, and repeated doses of calomel and antimony exhibited. He was obliged to be confined with the straight jacket. The ends of the fractured bones stood at right angles, nothing that we saw was adopted for their proper confinement. He sunk on Thursday.

This case is highly interesting in many points of view. It clearly illustrates the principle on which the treatment of fractures ought to be conducted—such a confinement as will ensure the perfect quietude of the ends of the fractured bones—the impropriety of meddling with the fracture during the time the process of reparation is going on—the fatal consequences that are likely to result from dressers disobeying the surgeon's orders—and the folly of referring the cause of non-union *exclusively* to non-excitability of system. We never hope to see a revival of the "rasping operation." Had the ends of the bones in this case been sawn off, or a seton passed, the probability is, that it would have been attended with a happier result. The case, taken as a whole, is but too illustrative of ignorance. However, "as it is allowed a man to grow wiser," we hope the worthies concerned therein will profit by experience.

FUNCTIONAL DISORDER OF THE URINARY SYSTEM.—ALBUMINOUS URINE.

An interesting case (at least to all such as have any spirit for inquiry) of this rare and singular affection was suffered to continue in this hospital, for a considerable time, during the summer of 1826, without exciting scarcely ordinary attention from either the surgeon or physician to whom the case was intrusted (Mr. Vincent and Dr. Hue), or any of the pupils who followed in their wake.

The patient, a Spanish refugee, about the middle period of life, with attenuated features and sallow complexion, was unable to give any satisfactory account respecting the commencement of the disease; that is, of the time when the urine first appeared altered in its *visible* properties, He had experienced no bodily suffering; an uncomfortable sensation about the loins being all that he had now and then complained of; had a natural pulse, and tolerably clear tongue; appetite good: the *quantity* of urine he passed, during the twenty-four hours, was not more than ordinary; that voided on rising in the morning, twelve hours abstinence having intervened, had the appearance, and emitted the odour, of healthy urine; it gave no deposit; it was not submitted to the action of heat: that passed one hour after breakfast, was somewhat cloudy; another portion voided two hours after the same repast, was pre-eminently cloudy; on standing there formed a slight flimsy jelly-like looking mass, resembling white of egg. We saw several specimens that were voided two, four, and six hours after dinner. The first of these, that voided two hours after dinner, had a slightly yellowish appearance; on standing, it afforded a jelly-like mass, similar in appearance and consistence to white of egg. This constituted about one-fifth of the aggregate; the remaining four-fifths appeared a yellowish looking serum. The specimen voided four hours after dinner was white, having the appearance of milk. Three-fourths coagulated; the remaining fluid fourth was slightly milky in appearance; the coagulum was partly opaque, partly semi-transparent. Another specimen, voided six hours after dinner, possessed the properties of milky chyle, such as is elaborated from oleaginous substances. It was white and opaque like milk; its taste was alkaline, not unlike that of a mixture of milk and carbonate of soda; it soon coagulated; it formed a solid mass, of a white colour, moulded to the shape of the vessel, resembling blanc-mange.

Dr. Prout, in his Work on Diseases of the Urinary Organs, has related a case similar, in many respects, to the present. The specimens obtained in the evening, in both cases, it will appear, were identical. We will transcribe the Doctor's observations entire, relative to this specimen, especially as they tend to unfold the nature of its composition. "The specimen voided in the evening after an early dinner, taken about noon, was the most remarkable, and so closely resembled chyle, in all respects, that I am doubtful if it had been brought to me as a specimen of that fluid, whether I should have discovered the imposition. It consisted of a solid coagulum, of a white colour, and assuming the shape of the vessel, like blanc-mange. On being submitted to a gentle pressure, and permitted to drain, the residual solid portion was like that of the others,* small in quantity, but whiter than the coagula of the other specimens: it was, however, mixed with strings of a firmer consistence, and of a red colour. The serous portion was white and opaque, like milk, and on being heated, and permitted to stand at rest for some time, threw up a substance upon its surface, very like the cream of milk, and which, like that substance, was found to contain a considerable proportion of a butyraceous principle; its specific gravity was 1·0175, and its smell was not urinous until after it was concentrated by evaporation, when it became slightly so, and in this state yielded faint though distinct traces of the presence of urea. It was not coagulable by heat, though it contained abundance of albuminous matter, chiefly however in that state in which it exists in the chyle, and which I have elsewhere denominated *incipient* albumen.* One hundred grains of this serous fluid, evaporated to dryness, left about seven grains, half a grain of which only was soluble in alcohol, and consisted of urea, a little fatty matter, and the other principles commonly found in all animal fluids; while the remaining six grains and a half consisted chiefly of the imperfect albuminous and fatty principles above mentioned, with some salts. It burnt with a flame, yielded an odour like that of cheese, and left a coal difficult to incinerate, but which when burnt was found to contain a considerable proportion of earthy salts, consisting chiefly of phosphate of lime." Such are the Doctor's observations relative to the chylous specimen, and the chief elements of its composition. The different specimens obtained in the present case, (the case of the Spanish refugee) would seem to depend upon the presence of a greater or less proportion of albuminous principle, from barely perceptible traces of it to perfect chyle.

There are some circumstances which occurred during our observation of this interesting case, which we deem particularly worthy of notice. About a week after the patient's admission into the hospital, he sickened, and lost his appetite; this was followed by a diarrhœa. During the continuance of the flux, the urine voided exhaled the odour, and had the appearance of healthy urine. The discharges from the bowels showed a deficiency of bile, they resembled in colour pipe-clay; as the bowels became less irritable, and the discharge less frequent, *pari passu*, the urine became deteriorated in its properties, and on the cessation of the diarrhœa, it was as albuminous as ever, and with the change came his usual health and appetite. What explanation will this admit of? Was not the diarrhœa consequent on slight inflammatory action of some portion of the alimentary canal, induced by a change of diet, from the poverty of vegetable living to the stimulus of animal food! This being admitted, will not the inflammatory action existing in the bowels, in some measure account for the restoration of the healthy functions of the urinary system, upon the principle of counter irritation. As long as irritation continued in the bowels, so long were the urinary discharges apparently healthy; when that irritation ceased, which occasioned the loss of appetite, &c. the functions of the urinary system were again disordered. *Functional* aberration does not much impair the general health. The return of the patient's appetite, with his wonted vigour of mind and body, under such circumstances, are easily explained. The irritation in the bowels was the cause of his sickness; on the removal of that irritation, the effects ceased. We could not obtain any thing satisfactory from the patient, as to the appearances of his motions previous to his admission: during his sojourn in the hospital, they manifested a deficiency of bile. Thus far of the history of this interesting case. Shall we say any thing of its treatment? Respecting it there is nothing to adduce: we scarcely heard of a prescription either from the Materia Medica, or the Materia Alimentaria. The little interest with which the case was regarded—the two or three colocynth pills that were given—the heterogeneous diet that was allowed—and the stupidity manifested in being glad to get rid of the patient—show what kind of interest such cases excite in the mind of our *chemical* Doctor and Lecturer. Perhaps the Doctor would have shown a little more concern for the patient if he had happened to pass gold instead of blanc-mange. As far as we can learn, the Doctor thought not the specimens of urine worth examination. Celebrated, highly-gifted and profoundly learned, as this Professor of Medicine and Chemistry at the school of St. Bartholomew's unquestionably is, we certainly should have felt gratified in being enabled to present the public with the result of the Doctor's analytical labours. As it is we cannot but deplore the wretched state of Medical Science, as taught and practised at this hospital. Winter Courses, indeed! it is an eternal winter with most of the "enlarged intellects" in this quarter; when there will be a thaw, time only can determine.

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* The previous specimens, on being submitted to pressure, parted with a large proportion of serous fluid, becoming exceedingly reduced in bulk, and assuming the appearance of a red fleshy mass, of a fibrous texture, which, on examination, was found to have all the properties of the fibrin of the blood, mixed with a few of the red particles of the same fluid.

* Annals of Philosophy, vol. xx. p. 13.

GUY'S HOSPITAL.

CASE OF (SUPPOSED) FRACTURE OF THE SEVENTH CERVICAL VERTEBRA.

W. Lynch, a stout muscular Irishman, 42 years of age, was admitted under the care of Mr. Key on the 7th of August, on account of severe injury to the spine. It appeared that the accident occurred in the following manner:—the poor man was standing, with his head bent forwards in a slight degree, under the crane-door of a warehouse in Thames-street, when two men employed above in loading a cart with bales of cotton, (each weighing one cwt.) let fall one of these bales on his head. He was knocked down, and was slightly stunned by the blow; but on attempting to rise he found that he was utterly incapable of doing so, and when assisted to rise, he experienced such a defection in the muscular power of his limbs, that he could not stand, and in this state was conveyed to the Hospital. When admitted, he was in the cold or congestive stage, as it is termed, which generally supervenes immediately after a violent shock given to the body; the pulse was labouring and slow, skin cold, and he complained of faintness. The lower extremities were found to be completely paralysed, devoid alike of sensation and of volition; the arms were partially paralytic, the flexor and extensor muscles could be used to move the fingers, but the power of raising the arms was gone. There was no sensation in the integuments below the true ribs, and the breathing was entirely performed by the diaphragm. It was found on examining the spine, that there was distinctly a depression in the situation of the spinal process of the seventh cervical vertebra, and there was considerable swelling of the soft parts from the extravasation of blood: he complained of pain at the seat of injury, and he had strenuous priapism. He was placed on his left side, and after the heat of the body had been somewhat restored, under the use of warm clothing, *twenty ounces* of blood were abstracted from the neighbourhood of the part injured by means of cupping (very adroitly performed by Mr. Hills) and the catheter was introduced. In the evening, a colocyth enema was administered, and the catheter again introduced.

8th. There is much heat of skin, the pulse only 60, and still laborious in its beat; the tongue moist, and slightly furred; the bowels are constipated. He passed a very restless night, and is apparently much distressed by the accumulation of mucus or phlegm in the bronchial passages, and as he does not possess the muscular power necessary to the expulsion of the irritating matter, his breathing is rendered difficult. The dresser, Mr. Randell, drew off a pint of urine this morning; the bowels not having been acted upon, a dose of castor oil was directed, and a colocynth enema to be repeated.

9th. The pulse has increased in number since yesterday—it now ranges from 84 to 90, and is less laborious; the skin is hot, the tongue dry, the lips of a purplish hue, the breathing thick and indicative of obstruction in the bronchial tubes. There is supposed to be an increase in the sensibility of the integuments of the chest, but it is of a very limited kind. The bowels have been well acted upon, and twenty leeches applied to the neck this morning: the catheter is introduced twice a day.

10th. The increase of sensibility is more manifest to-day, the patient now feels when the abdomen is touched; he has less pain in his neck. The respiration is still carried on solely by the diaphragm ; the mucous rattling in the breathing, with the purple appearance of the lip and leaden line of the face in general, indicate the severity of the bronchial affection, which appears upon the whole to be aggravated. The skin is hot and dry, and the tongue furred. Ordered—to take a dose of the saline effervescing mixture every four hours.

11. The patient evidently much worse ; the breathing is very remarkable, the act of inspiration is laboured and performed with much difficulty, but it is succeeded by a very quick expiration. Upon the whole, the poor man appears as if suffocated.

12. The patient died this morning—there was nothing remarkable took place previous to his decease.

The most earnest intreaties were made to be allowed to examine the body, but the friends could not be induced to consent: the prejudices of the lower class of Irish on this subject are proverbial—the Scotch and Welsh we find, however, almost equally tenacious. It is much to be regretted that a regulation, a standing rule, is not made, by which all persons entering the Hospital, and dying therein, should be subjected to a post-mortem examination. It seems but fair enough, that those whose wants and sufferings are ministered to by public charity, should at least contribute something to public good.

ST. THOMAS'S HOSPITAL.

EXTENSIVE CHRONIC TUMOUR, IMMEDIATELY ABOVE THE KNEE JOINT, CURED BY THE USE OF THE TARTAR EMETIC OINTMENT.

J. B., 33 years of age, a waterman, of florid complexion and healthy appearance, was admitted into Luke's Ward on the 16th of August, under the care of Mr. Travers.

There is a tumour of about a hand's breadth in size, just above the condyles of the left femur, and apparently emanating from the fore part of the bone, being immoveable and very firm ; it is flattened, regular on its surface, and only painful when forcible pressure is made. The motions of the knee joint are much impeded, the patient is incapable of flexing the leg completely, nor can he perform extension perfectly. The account which the man gives is, that the tumour has existed upwards of ten months ; he attributes the disease to the circumstance of having sprained the knee, whilst lifting a sack of wheat, at which time he experienced great uneasiness in the part, although there was no swelling, until a fortnight had elapsed. Blisters were applied to the swelling, and subsequently he became a patient at the Surrey Dispensary, where he was leeched and poulticed for upwards of five months without receiving any benefit. Ordered to rub the tartar emetic ointment upon the tumour, until a copious crop of pustules is produced. Five grains of blue pill, with a quarter of a grain of opium, to be taken twice a day, and a pint of the decoction of sarsaparilla daily.

Sept. 4. A report made on this day, state that the tumour is materially lessened, the surface has been made very sore by the ointment, which is now omitted, and the part merely covered with simple dressing.

16. The tumour has gradually diminished since the last report.

25. The tumour has entirely subsided, and the motions of the limb are now performed with freedom : strips of soap plaster, with a roller bandage, are firmly applied around the limb. The man only remains in the Hospital on account of a stricture in the urethra.

With respect to the pathology of this tumefaction immediately above the joint, Mr. Travers remarked, that he was of opinion the swelling was produced by effusion amongst the tendons of the extensor muscles, or, to speak more strictly, effusion within the membranous sheath of the tendons. Such cases, he said, were not uncommon, and they were in general the result of injury ; the swelling had no connexion with the joint, and was only of consequence, inasmuch as it impeded the motions of the limb.

FUNGOID (?) TUMOUR ABOVE THE VELUM PALATI, WITHIN THE POSTERIOR NARES.

J. G., 42 years of age, of sallow complexion and unhealthy appearance, was admitted into George's Ward on the 2d of August, under the care of Mr. Green.

When admitted, the following history and description of his case was taken :—he has for several months experienced violent pains in the head, and has been under medical care on that account ; he has become deaf during the last year, and, in addition to the pain, has laboured under various disordered sensations in the head, as vertigo, tinnitus aurium, &c. Three months ago, he found some difficulty in swallowing, and it was ascertained, on looking into the mouth, that there was a tumour at the upper and back part of the mouth, above the velum palati. There is now a fungous fleshy-looking body hanging down below the uvula, and pressing down the velum palati, so as to give it somewhat of a bulging appearance; it proceeds apparently from the posterior openings of the nostrils; the patient's voice is thick, and his breathing indicative of nasal obstruction, and he has a thin, sanguineous, and exceedingly offensive discharge from the nostrils. The difficulty of swallowing, of which he complains, evidently arises from the pressure of the tumour interfering with the action of the muscles at the fauces, the due consent of which, we know, is necessary to render deglutition perfect. In addition to this disease of the nostrils, the patient has a tumour behind the angle of the right jaw, as large as a moderate-sized orange, very hard, and not tender to the touch; it is of several months standing, and has not increased lately. Leeches and poultices of sea weed have been applied to this tumour, which seems to have no connexion with the disease existing in the nostrils.

Such was the patient's condition when admitted under Mr. Green's care, who considered the disease to be of a malignant kind—*fungoid* polypous growth from the back part of the nostrils, and consequently not a case for operation. The poor man, we have already stated, was unhealthy in appearance. He said, that from having been a stout hale man, he had become thin and emaciated; with a view, therefore, to improve his general health, Mr. Green directed half a drachm of the extract of sarsaparilla to be taken in four ounces of the decoction twice a-day. Milk diet.

On the 13th of August, he was ordered to use the infusion of roses as a gargle; on the 21st, a pint of porter daily was allowed, and on the 29th, eight grains of Dover's powder were prescribed, to be taken at bed time. These, with the application of leeches, and an evaporating lotion to the tumour behind the jaw, were the principal means employed until the 4th of September, when we find the following report made in our book:—the patient much improved in appearance; he complains of less difficulty in swallowing, and is now able to take his food; there is less discharge from the nose, and it is not of an offensive kind; the fungoid tumour above the palate has not apparently increased. However, this flattering state of things did not long continue, for about ten days afterwards, hæmorrhage from the mouth occurred to a great extent. From this period the man's health rapidly declined, a second bleeding ensued, and although upon looking into the mouth, there was very little apparent increase of the fungoid body seen hanging down behind the palatum molle, yet it seemed that the disease was extending in another direction; there was slight deformity of the bones perceptible at the upper part of the face, and the vision of the right eye became very indistinct. Becoming fearful that he should die in the Hospital, of which he had great horror, he left, on the 27th of September, in an exceedingly debilitated and miserable condition.

GANGRENE OF THE ARM IN AN OLD MAN, OCCURRING SPONTANEOUSLY.

From Mr. Travers' last admission of patients we reported a case of gangrene of the leg, occurring spontaneously, in the person of a brewer's servant, whose inordinate propensity for *stout* had brought him to such a bloated condition of body, that gangrene of the leg ensued, which ended fatally. In the next admission week of Mr. Travers, there was another case of spontaneous gangrene, but happening under widely different circumstances—in the first instance, the mischief arising from *repletion*, in the second from *depletion*:—An enfeebled old man, upwards of seventy years of age, who had been half starved in this "land of plenty," was brought to the Hospital on Thursday, Sept. 6, with his left arm in a complete state of gangrene. It appeared that the disease commenced a fortnight before admission, in the extremities of the fingers, and was attended with much burning heat and tingling; by degrees the whole of the arm became in a gangrenous condition. There was about a hand's breadth of integuments, from the point of the shoulder downwards, free from discolouration; on the inner side the extent of sound skin was somewhat less — the remainder of the arm was black and dry, emitting a peculiarly offensive odour. The pulse at the wrist was exceedingly feeble; and indeed altogether the vital powers were at a low ebb, under which circumstance it was not considered proper to amputate the limb; the means had recourse to were the exhibition of diffusible stimuli, as five grains of the carbonate of ammonia, with aromatic confection half a drachm, and ten drops of laudanum, every three or four hours, and port wine frequently given in small quantities. The gangrenous process, however, went on gradually increasing, until the limb became entirely affected, and the poor old man died on the fifth day after admission. The body was examined by Mr. Solly, the *embryo* demonstrator, and the left subclavian artery was found to be completely ossified at its commencement—its whole cylinder was converted into bone: there was no other material fact observed.

THE LANCET.

Vol. I.] LONDON, SATURDAY, OCTOBER 13. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY,
DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Symphysis Pubis.

Inflammation and suppuration.—It is not common, Gentlemen, for the symphysis pubis to be seized with acute inflammation; yet now and then spontaneously, or in consequence of some violence done to the joint, a sudden and smart attack of inflammation will occur there. When acute inflammation is attacking the symphysis pubis, severe pain is felt in the region of the articulation, and heat of the surface, and whiteness of the tongue, and frequency and hardness of the pulse, and all the ordinary signs of inflammatory fever attend. In conjunction with these indications of the disease, there is too one symptom very characteristic, and deserving, therefore, a particular notice—I mean the exacerbations of pain produced by all those causes which disturb the joint. Whether the patient be sitting, standing, or moving in her bed, sudden pains are occasionally felt at the symphysis, in consequence of the movement of the inflamed extremities of the bones upon each other—sometimes arising from the action of the muscles on the pelvis, and sometimes from the unequal alternate bearing of the trunk on the ossa innominata. By manual examination in dubious cases, all doubt may be removed, and especially by examining internally. Pass your finger into the pelvis, the ligament on the back of the joint internally being very thin, place the tip of the finger on the inside of the symphysis, and you may readily find whether it be tender or not. By a tenderness, therefore, observed in pressing the parts—by a severe exacerbation of the pain arising from all those causes which throw the bones into motion—by pain and aching in the region of the joint, and severe inflammatory fever, the disease is characterised distinctly, and easily discriminated. Unhappily the symphysis, where it has this acute inflammation, is apt to become a subject of suppurative action, and this somewhat promptly too—perhaps I may say in a few hours—certainly in a few days. Where matter is engendered between the extremities of the bones, and shut up in the ligamentous capsule like pus concealed beneath the *theca* of the finger, it may give rise to a vast deal of constitutional irritation. Shiverings frequently, and smallness of the pulse, general and alarming disturbance of the constitution occur, and the patient sinks perhaps before the matter is discharged; or where the symptoms are not so violent, and the constitution is stronger, the ligament, not without difficulty however, may be opened by absorption, and in this manner the matter may get out, sometimes issuing posteriorly, or at the point of the pubis; and sometimes working its way along the front of the pelvis, so as to escape at the upper and inner part of the thigh. When matter collects between the bones, this may, in general, be very easily ascertained by the previous inflammatory symptoms already enumerated, by the constitutional irritation, by the throbbings, by the shiverings, so often observed where pus is encysted, and more especially by manual examination. For my own part, if I suspected suppuration, I should confide in this examination of the joint, as the principal means of detecting it; and, in making this examination, although I should not neglect the other parts, remembering the thinness of the ligaments in the back of the symphysis, I should lay my finger on the inside of the joint, and making the most diligent investigation there, and if three or four drachms only of matter were collected in the capsule, it might, I conceive, in this manner, be easily detected. As inflammation and suppuration of the symphysis pubis, in the acuter form, is a very dangerous disease, it ought to be treated with considerable activity in women of robust and vigorous constitutions. *Venesection*, *purging*, *diaphoretics*, and *digitalis*, in operative quantities, should be tried. *Leeches* may be applied to the part, and *fomentations*. The more quiet the patient is kept, the less disturbance there will be of the inflamed structure; and if there is a good deal of pain after blood has been taken away from the arm, I would give *opium*, or other anodynes. If it so happens that your patient is not robust, but of a weaker constitution, such as we often meet with among those who are called the *fine ladies* of this metropolis, you must treat the disease with a little more tenderness. Purgatives, diaphoretics, digitalis, leeches, fomentations, and so on, may all be proper as before; blood, too, it may be necessary to take from the arm; but, in those constitutions, you will soon find out, when practising for yourselves, that *large venesection* is, in general, *not* well borne.

Were matter to form in the joint, I should be anxious, on account of irritation, to ascertain the existence of it as early as I could; and if I found there was a great deal of disturbance attending, I should wish to lay open the joint as promptly as might be, to give the matter early vent. The crown of the arch of the pubis, care being taken not to wound the orifice of the urethra, or the urethra itself, lying on the back of the joint, would be a part convenient enough for the introduction of the lancet.

Of Chronic Inflammation and Disorganisation of the Symphysis Pubis.

In women with *blue eyes* and *fair complexion*, and *flaxen hair* and *attenuated skin*, beautiful but scrofulous, we sometimes meet with another disease of the joint, viz. *chronic inflammation*; in its nature very nearly allied to the *white swelling* in the hips and knees. When the chronic inflammation of the symphysis pubis occurs, the patient is affected with pain there, as in the case of inflammation in the acuter form. There is a tenderness on pressure; there is uneasiness felt upon progressive motion; in standing, nay, even in sitting or lying, for the reason already assigned, exacerbations of pain are apt to occur; some febrile action is present, not that severe fever which accompanies acute inflammation, but of a hectic nature, continuing for a few days or weeks; the disease may remit for days or weeks spontaneously, or in consequence of the use of remedies, returning with increased violence and again remitting, and thus, sometimes exacerbating and sometimes less severe, it makes its progress with varying rapidity till it ultimately terminates either in a resolution of the inflammatory action or a suppuration, and a disorganisation of the joint. Suppuration occurring, the patient may die before the matter is discharged, or she may live until the matter make its way forth externally or internally, and until the ossa innominata are completely separated in front, a point easily detected by examination. When the woman survives the opening of the abscess, the parts, being in a state of malignant disorganisation, are indisposed to heal; unhealthy fluids are discharged, constitutional irritation continues, and the patient is carried off by the wasting and hectic.

There is, I believe, in the present state of our information respecting this disease, but little hope of recovery when the joint is completely disorganised, and especially where there is a scrofulous taint in the constitution. That man will indeed be the benefactor of his species who shall discover the means of remedying the scrofulous defects of the habit. The *sea air*, the *sea side*, *bathing* in the open sea, &c., are recommended as calculated to improve the scrofulous habit, and I believe they have their advantages. If your patient is gaining ground, this would be a very proper occasion on which to send her to the sea shore. Iodine will do no harm.

A principal object which you ought to bear in mind; and which will serve as an indication to direct your plans of local treatment, especially consists in the *prevention* of the suppurative action, by keeping the inflammation under that level which may give rise to the formation of matter; and with this view it was that Dr. Heighton was accustomed strongly to recommend the repeated application of leeches, six or eight, for example, two or three times a week for weeks together. Every accoucheur knows well, that women bear the loss of blood in a manner truly surprising, and which, independent of previous observation, might scarcely have been believed. A woman *miscarries* sixteen or eighteen times in the course of three or four years, and on all these occasions has considerable discharges of blood, the constitution being shaken indeed by these discharges, but not completely broken up. When patients labour under prolapsus of the inner membranes of the rectum, it is surprising what losses of blood they will sometimes bear, without becoming the subject of a fatal cachexia. Now this fact being established, in inflammation of the pubis we may, I think, venture from time to time to take away moderate quantities of blood for weeks in succession, where good is derived from it; nor where the inflammation is restrained ought we to be deterred from the application of leeches, merely because the patient complains of weakness. To avoid debility is indeed important, but not so important as to subdue the inflammation, and if we have no antiphlogistic means preferable to leeches, the application of them should not be rashly laid aside. *Blisters, issues*, and *setons*, together with the other ordinary remedies, are not to be forgotten. Mr. Park, a surgeon of Liverpool, succeeded in removing, in a sailor, the knee joint from the leg, the patient ultimately recovering. Mr. Oxley, a gentleman formerly of this class, informed me, that in cases of diseased elbow, he had seen his preceptor, Mr. Hey, of Leeds, perform the following operation:—He made an incision over the joint large enough to allow the introduction of the tips of two or three fingers, and then taking a sort of chisel, (even a chisel may be very useful in the hands of such a surgeon,) by means of this instrument chipped away the diseased structure. In three or four cases, said Mr. Oxley, I have seen this operation performed, and, with one exception, the patients all did well.

Now where there is a disorganisation of the symphysis pubis, and it is very obvious that the patient must die exhausted, unless something extraordinary be done, it would perhaps be worth while to remove the extremities of the bones; and if the disease were not spread so far as to require a very large removal, there would be a reasonable hope of success. I do not, however, by any means intend to recommend this operation to your rash adoption, though I think it may deserve a cautious consideration in a case otherwise desperate.

Of Relaxation of the Symphysis Pubis.

We sometimes find the symphysis pubis affected with another disease, and not always clearly discriminated by practitioners, I mean the *relaxation of the symphysis pubis*, of which I myself have seen examples in three or four different instances. Where the relaxation of the symphysis pubis takes place, it may, for ought I know to the contrary, now and then occur independently of gestation, but in all the cases I have seen, this disease has been connected with pregnancy, and it is generally in the latter months of gestation that it manifests itself. At first the patient feels a little uneasy about the symphysis; this uneasiness increases till there is a feeling of weakness in the front of the pelvis, and perhaps when the patient is walking in the street she has a sudden pain, which obliges her to stop; or if she is lying in bed, even upon turning herself, she feels a sudden and severe pain, arising, it may be, from the stretching of the ligaments. The disease increasing, its character becomes more marked; there is then a feeling as if the pelvis would fall to pieces. The woman walks, perhaps, but with great difficulty, feeling much uneasiness in the joint; by and by she makes use of crutches, then she lies on the sofa, ultimately she keeps her bed; and if you ask her to leave her crutch and stand up, on trying to stand she immediately sinks as if she were intentionally sitting down. If you lay your hand on her hips, and firmly press the bones so as to support the two ossa innominata, she will stand with less difficulty; if you move your hand, she immediately sinks upon the bed. When parturition supervenes, the disease becomes obvious enough; the woman tells you her bones are in motion; I think I have even heard them move, and if you examine them with ordinary care, the motion may be distinctly felt. After parturition, in a few weeks it may be, the joint occasionally recovers, but frequently the relaxation continues for months, or for years, being apt to recur in an increased degree, with each succeeding gestation.

Here then are the leading characters of this disease: a feeling as if the pelvis would fall asunder; a sensation as if the bones were in motion; an incapability of standing, unless the pelvis be supported; and such motion and displacement of the bone in front as may be distintly felt on a careful examination. Obscure cases may be detected with difficulty, but by these few characters, where your vigilance is alive, I think you may easily enough know the disease, provided it be completely developed. Varieties of this disease occur, but I content myself with its general history. For the relaxation of the symphysis pubis, we are not in possession of a very effectual cure, as indeed you may infer from my asserting that this is a disease which sometimes lasts for months, and even for years together. *Bark, bitters, tonics*, and *alterative* medicines are proper enough for administration, as they tend to brace and strengthen. The country, the sea-shore, the sea-bath, and sea-bathing are recommended, especially when the patient is improving. Denman (a very experienced and candid practitioner) states, that he found advantage in some cases principally from the *plunging of the hips* into very *cold water*, and this I also recommend.

A *palliative* for the disease, and a very valuable palliative, is a well-contrived *bandage* made of some unyielding texture, of jean, for instance; applied in such a manner as thoroughly to embrace the hips, and formed with straps and buckles, or with a lace, so that it may be tightened or slackened at pleasure. From our hunting belts a hint may be taken for the construction of this bandage; it is made precisely on the same principle, and in cases of slighter relaxation, answers the purpose very well. I find, however, that patients sometimes lose the advantage of the bandage from their want of perseverance. Not habituated to be confined in this part of the body, they become impatient, lay the bandage aside in two or three days, and tell us they would rather suffer from the disease than the use of the belt. Nevertheless, where properly applied, it is a very valuable palliative, and the patient, if she ultimately perseveres in using it, will find it do her effective service. If women could wear those stays, the vogue of the good old times, and which came down upon the pelvis, and actually incurvated the very bones, as my own preparations show, I do not see why, with the help of habit, they may not be able to wear the bandage which I am here proposing.

In cases where bone has been *broken*, and the parts become re-united by cartilage, instead of being consolidated in the ordinary way by *callus*, Mr. Amesbury, a very ingenious man, has contrived an *apparatus* to gain an osseous reunion of the parts, which he will best explain to you. The general effect of this apparatus is to keep the extremities of the bones bearing upon each other, and perhaps I may say to press a little, or at all events to *irritate* this cartilaginous union. The result of this irritation is to give rise to some degree of inflammatory action, not to be carried beyond a certain point; and the result of this inflammatory action, as every physiologist knows, is the deposit of earthy matter. By this beautiful application of a physiological principle, Mr. Amesbury has obtained a consolidation of the broken bone, where the seton itself had failed. Now this being understood, it might be worth consideration, whether something of the same kind could not be suggested with respect to the symphysis pubis. It is true, indeed, the relaxed symphysis pubis, unlike the cartilaginous joint of fractured bones, is not naturally prone to ossification, nevertheless it may be worth trial, whether by the use of the bandage drawn very tightly, such irritation may not be occasioned as may give rise to anchylosis, or at least to a constriction of the joint. I have sometimes thought there is another remedy which might be tried, where a woman has been laid up for many years a complete cripple. It is well known that the symphysis pubis may be divided by the knife, without necessary and urgent danger. Frequently, on the Continent, this has been done, though for another purpose, that of enlarging the pelvis at the time of delivery. In the case I am now putting, where the patient is a cripple, and where she has been laid up for many years, might not a cure be effected by passing the knife through between the bones, and afterwards by means of a proper bandage, keeping the extremities of the ossa pubes in firm contact with each other. It is certainly a rough remedy, and as the disease is not dangerous, women might perhaps be averse to submit to it under any circumstances; but as benefit might perhaps attend its administration, I have thought proper to mention it.

Sacro-iliac synchondrosis.—The next joint to which I shall request your attention, also not without its obstetric interest, is the sacro-iliac synchondrosis, a joint which is uniting the sacrum with the ilium on either side of the pelvis. In its structure, the sacro-iliac synchondrosis behind, very considerably resembles the symphysis pubis; it is formed by surfaces of the os ilium and sacrum, invested with cartilage, connected by a somewhat soft substance, and braced together by means of a large number of ligamentous fibres, inserted into the sacrum and ilium, and lying both in the front and back of these bones. When speaking of the symphysis pubis, I said there are more ligamentous fibres externally than within, a remark which holds true here. It is principally at the back and outside of the pelvis that these fibres are accumulated, and wisely, for if there were a large mass of ligament internally, it might impede the passage of the child. These fibres are divided into two sets, the external, and those which lie within, called the external and internal, sometimes the anterior and posterior, pair of ligaments.

The diseases of the sacro-iliac synchondrosis are not of the same interest as those of the symphysis pubis; and I am the more gratified at this, because it enables me to simplify my remarks upon them. *Inflammation* of this joint may now and then occur; the joint is large, and a great deal of pain might attend. With sciatica, the disease would most probably be confounded, nor perhaps is the distinction of real importance. It would be too much to say, that *suppuration* of the sacro-iliac synchondrosis never takes place; such cases, however, are infrequent, and have not fallen under my notice. *Relaxation* of the joint is of more common occurrence, and a case of this kind you will find in Charles Mansfield Clarke's useful work on the diseases of women, accompanied with discharge. Among other symptoms, the patient had a good deal of pain in the back, and an incapability of standing for half a minute, unless supported on each side. When she made the attempt to stand up, she placed her hands on the sides of her hips; this led her surgeon to make a firm pressure there with his own hands, and as long as these were firmly applied, she could stand, but as soon as the support was withdrawn, she was in danger of falling. Now symptoms like these will enable you with facility to detect the disease in most instances, provided you recollect that women are liable to this affection, and are on the watch for its occurrence. In the case related by Mr. Clark, *time*, which cures so many evils, and which will remove all our diseases at last, was found to be the remedy. Palliation was derived from the use of a well adjusted bandage; indeed I should expect more benefit from a bandage in this case, than in the relaxation of the symphysis pubis, because the articulatory surfaces are broader, and consequently admit of being more readily brought to bear against each other.

Of the relaxation of the Joints of the Pelvis.

In many of the *mammiferous* animals, when delivery is about to take place, a considerable relaxation of the joints of the pelvis occurs, leaving the bones in a great measure separated from each other. Mr. Mangles informed me, that in dissecting a *mole* which had recently brought forth its young, he found the ossa innominata in front distinctly separated from each other, to the extent of three or four lines, the pubes being connected by means of mascular fibres, the action of which would have the effect of mutually approximating these bones. When the *cow* is about to bring forth her calf, there is, I am informed, a relaxation of the symphysis pubis, and of the *sacro-sciatic* ligaments, and such a yielding of the sacro-iliac synchondrosis occurs on either side, that a day or two before parturition the sacrum of the animal falls inwards, and a considerable chasm in the back is produced, by farmers denominated the sinking of the rump, and regarded as a token of approaching delivery.

Now a question arises, whether, as a relaxtion of the ligaments and joints occurs in many of the mammiferous animals, this relaxation may not also take place in the human female? Ruysch states that he frequently observed it. Harvey speaks of it as a common occurrence, and he, though a physician, was a master in anatomy. In the year 1815, when a great number of women unfortunately became victims to that most awful disease, the *childbed fever*, the death of so many young mothers, several puerperal bodies were brought to the dissecting room over the way, when I took occasion to inquire into that point, and found in one pelvis carefully examined, that some little relaxation of the ligaments certainly existed. The woman appeared to have sunk some three or four days after parturition. When I laid hold of the ossa innominata and sacrum, I found I could readily move them, the one upon the other. On putting my finger behind the symphysis pubis on the ligament, I found that I could press it a little way into the joint between the bones, the ligament yielding to compression. When I attempted to move a little the innominata in front, the articulation offered but a slight resistance. On another pelvis *not* puerperal, and to appearance equally advanced in putrefaction, comparative observations were made, but in it the joints were not equally unbraced. In making this examination of the pelvis therefore, some relaxation of the ligaments I did observe, but I did not observe what had been asserted by the older anatomists, a decided separation of the bones from each other. Nor indeed did I expect to find this, for how then could women walk immediately after delivery. On the whole, my opinion with respect to the relaxation of the ligaments of the pelvis is, that in many other genera of the *mammalia*, it occurs in a much higher degree than in women, but that even in them some slight relaxation is taking place. Now this relaxation enables us to explain what we before stated as a fact, without entering into the reason of it, namely, why women are liable to marked relaxation of the joints before mentioned, solely or generally in connexion with gestation. It also enables us to explain why the symphysis pubis is sometimes burst open, where the child has been unusually large.

Of the Bony Case formed by the Pelvis, and the Properties of this Case, so far as they are important in the Practice of Midwifery.

Having concluded our observations upon the joints and ligaments of the separate bones of the pelvis, so far as these are interesting to the accoucheur, I now proceed to another important part of our subject, namely, the consideration of the bony case formed by the pelvis, when the different parts are put together, and the properties of this bony case so far as they are concerned in the process of delivery. If you enter a museum, which is well stored with pelves, you soon find on examining them, that there are perhaps no two precisely alike. Some are large, some small, some contracted, some distorted; some contain little osseous matter, and some abundantly; much and variously the pelves are diversified. What a feast for a minute anatomist! The accoucheur, however, ought not to bewilder himself, as a minute anatomist might do, with the consideration of all the various forms, because many of them are of small importance in obstetric practice. For him, I conceive, it is sufficient to become acquainted with the following varieties, the knowledge of which is essential to the scientific exercise of his profession. I mean the large and small, the slightly and the highly-contracted pelvis, and the pelvis of standard dimensions. Five varieties, of which I here place specimens on the table before you.

Standard Pelvis.—By a standard pelvis I understand that form of pelvis which the most generally occurs in practice; and which, notwithstanding some small and unimportant variations, is always met with where the skeleton is well formed. When I make my observations on the pelvis of standard make, I soon perceive that this pelvis is naturally divided into two parts, the *superior* and the *inferior*; the *brim* of the pelvis, as it is called, forming the line of demarcation between the two. So much of this pelvis, as is lying above the brim, is denominated the *false* pelvis; and the appellation of *true* is assigned to that part which lies below. The false pelvis is not to the accoucheur of much importance, yet one or two observations upon it may not be out of place. This part of the pelvis is remarkable for the large chasm you observe anteriorly. In the front, therefore, it lies wide open, being closed up laterally and behind by the wings of the innominata and the vertebræ of the loins. Of no small importance is this piece of information, when you are making nice examinations of the *pelvic viscera*, the *bladder*, the *womb*, the *ovaries*, and so on—not to mention here the *kidneys* and *intestines*. If the accoucheur be asked to examine and ascertain the state of those parts with nicety, let him recollect, that there is a large chasm in the front of the pelvis, and that this chasm allows the hand to be fairly introduced into it. Sometimes we may actually feel distinctly the promontory of the sacrum, and if this can be done, surely any intervening enlargement, or hardness, tenderness, &c. of the uterus, ovaries, kidney, or omentum, may be easily made out. In making this examination, the woman should be recumbent, with the knees and shoulders elevated, and the abdominal muscles thoroughly relaxed. Unpractised as you at present are in midwifery, these niceties may appear to some to be of small importance—parva leves capiunt animos; but give me leave to tell you, it is the knowledge of these little niceties that makes the difference between an awkward and an able examiner; in other words, it is this knowledge which distinguishes the man, who can make out what are the diseases of the pelvis, from the man who cannot.

We shall not have time to enter upon the true pelvis, I therefore defer its consideration till to-morrow.

LECTURES
ON THE
INTELLECTUAL COMPOSITION OF MAN

Delivered at the London Medical Society by

DR. HASLAM.

LECTURE I.

On Perception, and its associate, Memory.

Man is not a mere corporeal and animated mass, not exclusively the compound of circulation, respiration, digestion, secretion, and other vital actions: this living system is endowed with organs and capacities of a different and more elevated nature; susceptibilities of impression, and capacities of intelligence, that by proper culture and application may become gradually ripened into the display of mind. The human mind, is not the progressive unfolding of intellectual germs, which nature first protrudes, and subsequently expands; but a structure that is reared, in its primordium, by casual excitations, and in its most important attainments, by the active exertions of the individual himself. The vital mass or corporeal frame, bears this character of progressive development, and from minute rudiments and by some plastic energies, little comprehended, dilates from infancy to the perfection of manhood; distends important organs at the season proper for their functions; and propels the growth to prescribed limitations. Over these vital actions we have no direct control: they are the fabrications of a higher power; and the same agency that promotes their continuance and advancement, contributes to their decline and extinction. The phenomena of mind are of a different order, they are not independent existences, but require for their display the indispensable medium of a living system. The capacities of intelligence would remain dormant, were they not excited by external circumstances; and they would never attain a perfection that is beneficial, without the laborious exercise of the mind itself on its own attainments.

These researches appear to constitute the intellectual physiology of man; and when properly conducted, may be viewed as an important branch of medical education.—Hitherto the department of mind has been usurped by schoolmen and metaphysicians; who, in the dignity of their vocation, have capriciously allotted faculties to man, and dictated laws to nature. These philosophers, in their sweeping abstractions, have disdained the path of observation, and the labours of experiment; have inverted the order of induction, by assuming generalities, and torturing the principles to an accommodation with individual phenomena. To rescue the doctrines of mind, which ought only to be considered as a part of the physiology of man, from the grasp and assumptions of those who during their long possession of this subject have mostly slumbered; and in their waking intervals, have merely babbled forth the unconnected tissue of their dreams:—to transfer these investigations, into the legitimate custody of the medical profession, for the advancement of science, and for the benefit of our species, is a principal object of these discourses. However we may attempt to separate the intellect of man, from his corporeal system, and speak of his mental powers abstracted from his bodily structure; we must recollect, that they are conjoined by nature. The sensitive organs by which we derive knowledge, are parts of the living apparatus: and although we may verbally disunite them, for systematic convenience, or for the facilities of instruction, they must be regarded as one united system of reciprocal actions and mutual contribution. Let no alarm be excited concerning the tendency of opinions, that are the legitimate interpretations of fact. But if any one should suspect that a wall is here built up, to which the branches of infidelity may be trained; and which forms a line of separation from the orthodoxy that is accredited; or if he presumes, that a hopeless materialism will be disseminated, he will be wholly disappointed. To the established doctrines of our national creed, or to the tenets of any other class of Christians, the philosophy of these lectures is not in opposition; but as we penetrate more intimately into their substance they will be found to afford additional reasons, and I think convincing proofs, of the immediate and future responsibility of man. The intimate nature of the capacities whereby we acquire knowledge, and become enabled to display the evidences that are termed intellectual, is not the subject of our present investigations: these *capacities* are mysteriously concealed from our researches, and have only been so denominated, to confess a total ignorance of their constitution: we know them to be the attributes of certain organs, and that by appropriate excitements, their separate functions are awakened. It is by no means determined, that particular parts of the brain are the seats of particular faculties or capacities. The very existence of distinct faculties is not proved either physiologically or metaphysically. The nature of the relation, between the sensitive organs and the brain is at present unsatisfactory, and the exclusive functions of the brain is equally a secret.

The same dense and impervious veil, equally defeats our penetration into the abstract nature of life. We must be content to observe its evidences without the hope of detecting its sources: we may ascertain in a general manner the circumstances by which it is continued and extinguished: but in the present state of our knowledge, we are not competent to determine, that life is the superaddition of any particular principle to matter, because the principle is unknown:—neither are we entitled to affirm that it is the inevitable result of organisation, as we cannot point out the necessary connexion between structure and function. If, however, we are incapable of scrutinising into the abstract nature of life, and into the constitution of the intellectual capacities; we possess by observation a knowledge of the organs and agents, by which the evidences of mind are produced: and these are amply sufficient to illustrate the "intellectual composition" of our species. From this station I propose to start; and having duly considered the nature of the infant at its birth; in the first place to inquire, What are the circumstances and contingences of the world into which it is propelled that act on it to excite those evidences that are denominated the phenomena of intelligence? and secondly, What does it subsequently derive from its resources, by the elaboration of its acquirements? In a state of perfect formation, we are furnished with five distinct organs, by which we become acquainted, to a certain extent, with the world we inhabit. These have been named the sensitive organs, or the five senses, and it is proper to remark, that each conveys a different kind of intelligence.

1st, Sight, of which the eye is the organ, and light the medium of transmission.

2ndly, Hearing, of which the ear is the organ, and air the ordinary medium.

3dly, Smell, of which the internal membrane of the nose, where the olfactory nerves are distributed, is the organ, and the atmosphere the medium by which odoriferous particles are conveyed.

4thly, Taste, of which the tongue, palate and lips principally compose the organ; and various liquids, or more solid substances in a partial state of solution are the media by which the sapid organ is excited, and the actual contact of these substances is necessary to produce taste. In establishing the simple perception of taste, we must not overlook its connexion with the pharynx, the conjoined act of deglutition, and the feelings of appetite or disgust which on some occasions originate from the stomach, and at other times are produced from sources purely intellectual.

5thly, Touch, which must be discriminated from feeling: the pulpy internal extremities of the fingers compose the appropriate organ; and contact is the medium by which touch is attained.

The full discussion of the nature of perception would occupy several lectures. These perceptions are our first acquirements, and form the basis of our knowledge: they may be viewed as the alphabet of intelligence; and it is to be regretted, that a mere abstract only of this important process can be exhibited. It has never been supposed that the infant brought with it any memoranda of its uterine existence, or was prepared by any intelligence to meet the difficulties of the world into which it is propelled. A ray of light will impress the retina; but for some time, the test of that excitement is very feebly and indistinctly marked by the contractions of the iris. It is impossible to describe the imperceptible gradations of sight, as several months elapse before any tolerable knowledge of distance is attained, and some degree of *volition* must co-operate, before the organ can be directed to the object, and for which purpose it is furnished with a particular muscular apparatus. In the same manner sounds awaken the sensibilities of the ear: loud intonations excite alarm, and appear to produce a concussion of the nervous system: yet it is a considerable time before the infant can discriminate the tones that convey kindness and encouragement, or the harsh notes of displeasure and rebuke. It may be laid down as a correct axiom, that the sensitive organs are passive in the incipient process of perception, in other words, that the organ is surprised or simply excited by the particular stimulus, without being capable of adapting itself to the examination of the object. Thus light is forced on the eye, sounds strike the ear, and resistance impresses the touch. By degrees, the different organs of sense are directed to these objects: the eye becomes more fixed, the ear listens or dwells on the sound, and the fingers are brought into contact with tangible substances. These progressive adaptations of the organs of sense, are the results of acquired voluntary motion; and the improvement of perception is necessarily commensurate with the increased voluntary facility of adapting the organs to their separate objects. Without this conjoined volition we could make no mental advances; we might experience occasional glimpses, and indistinct intimations of the phenomena of nature; but we should be unable to command even a momentary attention for their due examination: for it will be found as we proceed, that attention is an act of the will. The same law that produces fatigue and exhaustion of the muscular apparatus, after continued exertion, is equally extended to the perceptive organs. The protracted examination of objects by the eye, the attentive listenings of the ear, and the enduring devotion of the other senses to their appropriate excitements, generate weariness, and an incapacity of efficient continuance; the rationale is wholly obscure: we know the fact of the lassitude that ensues, and we experience the recruit that follows rest; but this renovation is a perfect mystery. We are not aware of the expenditure of any principle in the muscles, or organs of sense, by continuity of exertion; nor can we determine what is regained during its discontinuance. We only know that the same law of Nature applies to the muscles and perceptive organs, and likewise comprehends the whole range of our mental exertions. There are however slight glimmerings, that seem to afford some clue to conjecture. The muscles that experience this fatigue are the *voluntary* muscles, their motions are directed by the will, and continued by its endurance, which is termed attention. The *in*voluntary muscles indicate no sense of fatigue: the force and frequency of their action, under certain circumstances, may be diminished, but the heart will continue its pulsations for a century without any individual feeling of weariness. In some morbid affections, these voluntary muscles will be impelled to long-continued action, independently of any voluntary direction, and over which motions the will has no control, as in chorea, St. Viti, and in the shaking palsy of the head: it is remarkable that these motions, although sometimes violent, and of considerable duration, do not induce any degree of fatigue corresponding with the intensity and continuance of their action: and in some forms of insanity, the patient will continue his muscular exertions, and talk for days together, without experiencing fatigue or producing the exhaustion that invites sleep. These morbid affections may be considered involuntary movements, and increase the probability, that fatigue and exhaustion are principally incurred by the efforts of volition, and its continuance, which is termed attention. It is unnecessary to detail the separate functions of each sensitive organ, as such knowledge is sufficiently diffused in various treatises: taken collectively, they may be considered as the tests, by which, to an allotted extent, we become acquainted with the phenomena of Nature. During the time we are awake, these organs of sense are susceptible, prepared, and on the alert, to notice, arrest, and appropriate the presentations that excite perception. Whoever has observed a spider in the centre of his web, with his prehensile claws so extended as to receive intimation of any luckless intruder, will readily conceive the vigilance of our senses to immediate impressions. When we calculate the perceptive capacities, and their progressive improvement by repeated efforts, when we observe that these organs are five distinct sources of knowledge, and when we consider the manifold contingencies of this state of existence, producing a boundless variety of perceptions, we shall be in some degree aware of the prodigious aggregate of the rudiments of the human intellect.

The favouring conditions of accurate perception, are the sound and vigorous state of the organ, and of the muscular apparatus by which it is directed to its object. By repetition and frequent exercise, short of actual fatigue, its powers of discrimination are improved: but it must likewise be kept in mind, that the gradual bodily expansion, or perfect development of the organ itself, supplies a material assistance: and as the act of efficient perception implies attention, any intrusions, by which its concentration is enfeebled, will render it less successful; for which reason the most perfect quietude is indispensable. The particular functions of each sensitive organ having been sufficiently noticed by authors, it will not be necessary to detail them: they have a definite purpose and limited extent: the range is ample, but it is strictly bounded. There is a more important subject of investigation, which consists in developing the prodigious achievements that are effected by the cooperation of the different senses. The enumeration of these would fill a moderate volume, and therefore it can only be remarked that however the smell and taste, when associated, may afford mutual assistance, and confirm their individual discriminations; yet in conjunction with the other senses, they are the least distinguished by their influence and effect. For the present purpose it will suffice to notice, briefly, a few of the combinations with the organ of touch. This sense is most particularly and abundantly bestowed on man: in the acuteness of the others he is surpassed by many animals. In man the organ of touch is complicated with the instruments of prehension, and the same union is observed in the elephant, although the apparatus is of a very different construction. It has been previously remarked, that touch is to be discriminated from feeling, and a further distinction must be established between this sense, and certain voluptuous sensations conveyed by contact with the lips, tongue, glans penis, and clitoris, because the mere feelings of pleasure and pain, differ altogether from the intelligence that is derived from our tangible perceptions. Every part of the skin is in some degree endowed with the sense of touch, as it is enabled to detect hot and cold, hard and soft, rough and smooth, and by education these discriminations might be considerably improved. The efficient organ of touch, resides in the internal pulpy extremities of the fingers, and it must be noticed, that the hand, with its digital terminations, is the organ of prehension, and from its variety of motions and capacities of adaptation, appears to perform the compounded offices of seizure, retention, and perceptive examination. The immense range which the organ of touch, prehension and adaptation enjoys by its connexion with the arm, enables this sense to co-operate with the others, and to become their useful auxilliary, by the approximation or removal of objects to the perceptive distance. In some professional instances the touch is associated with the sense of hearing, and this conjunction confirms their individual evidence: thus in examinations for the calculus in the bladder, crepitus, and in tympanitis, the audible perception corroborates the intelligence obtained by the touch; and many other examples might be adduced: but the most astonishing elaborations of human skill have resulted from the conjunction of touch with vision. The facilities of prehension and adaptation incorporated with the touch, have enabled man to hold and manage the various tools and instruments, by which the works of art are accomplished, and his eye has directed their proper employment. To this combination, where the perceptions of each sense individually and successively co-operate, we owe the perfection we have already attained, and hope still further to derive from the incisions of the graver, the pencil of the artist, and the chisel of the sculptor. Written character, the record of observation and thought, has the same origin; and likewise the performance of instrumental music when the characters of its notation are employed. All the handicrafts and mechanical adjustments; the tasteful elaborations for personal ornament; the minute and delicate fabrications which the female executes; the dexterities of aim, whether the arrow or ball be projected, employ the united direction of the same senses. It would be superfluous to multiply examples of this holy alliance of vision and of touch; yet the preeminent illustration is untold. For the investigations of human structure, and for the relief of human affliction in its most terrific aspects, and fatal progression: for the skillful union of divided parts; for the timely extirpation of morbid advancements; for the perilous extraction of extraneous bodies, and the immediate security of bleeding vessels; for all the benefits we derive from operative surgery, the practised eye and erudite touch afford their mutual assistance.

This imperfect and mutilated outline of the subject of perception will be a sufficient introduction to conduct us to its associate,

Memory.

From the restricted nature of these lectures, a very general account of perception has been imparted, and the same necessary limitation will confine the observations on memory; because, as we advance, and the subject becomes more ripe for discussion, these deficiencies will be supplied. It is the intellectual composition of man which it is intended to demonstrate and establish, and this must be effected in the order and succession of his attainments. Memory is termed the associate of perception; because, without this associate, perception would be useless, and could never conduce to the formation of mind or intelligence. Let us attribute to the perceptive organs the most exquisite sensibility:—allow the eye to possess the keenest discernment:—concede to the ear the capability of detecting the feeblest and remotest sounds:—endow the touch with the nicest contact:—furnish the olfactory organ with surpassing delicacy of scent, and confer a fastidious accuracy on the taste: let these organs be thoroughly awake to the slightest impressions, and from these feeble contingencies, suffer them to realise the fulness and intensity of perception: let them for ages be repeated with the frequency that the wave washes the shore; at *each successive* presentation they would be novelties. They would all perish without a remaining vestige, had there been no means of recording their existence. This record is termed memory, and the copiousness of our language supplies many other terms of equivalent meaning: as to remember, recollect, recall, retrace, with a variety of others. The power by which we perceive and remember is an inscrutable mystery: we are fully aware of the directing wisdom that constituted memory the associate of perception, because perception alone would have conveyed no intelligence. We are satisfied by observation and experiment that the organic structures of the eye and ear are necessary to convey the perceptions of sight and sound: but we are unable to explain why a ray of light should be the appropriate stimulus to the retina. With such conjectures and their pretended solution, the metaphysicians beguiled themselves, and consumed the valuable time of their disciples; and in this state of groundless supposition we should have still remained, had not the natural philosopher, on the unerring principles of mathematical science, developed and expounded the laws of optics and acoustics. As a subject of physiological research, we know the importance of recollection, and as medical practitioners we are called on to remedy its defects. There is a certain period of human life when it is most vigorous, both in the promptitude of acquirement, and in the retention of its attainments: some persons can readily imbibe the task assigned, but are unable to hold the possession for any length of endurance: others are slow to learn, yet the acquisition becomes a fixture in the recollection. Both these forms, although seldom united, must concur, to constitute the most perfect memory. The observation of our species, and that higher exertion of intelligence, where the individual analyses the constituents and detects the elaborations of his own mind, will convince him, that if memory enjoy a meridian splendour, there is likewise a season for its decline. As efficient perception results from the attention with which the object is examined by the healthy organ, so will the recollection be proportionally enduring; and this law of our intelligence, establishes memory to be the natural associate of perception. In the same manner as our muscular dexterities are acquired by frequent and attentive exercise, our memory becomes improved by repetition; and where an ardent curiosity constitutes the motive to investigation, or where pain and pleasure are associated with the perception, the recollection becomes more vivid and enduring. There are morbid states where the connexion between perception and memory is more or less disjoined, and these will be particularly noticed on another occasion. These are the general phenomena of memory; but there are some peculiarities relative to this subject, that have not been hitherto unfolded, and which appear sufficiently interesting to be noticed, in order to point out those progressive additions to our knowledge, that illustrate the intellectual composition of man. The indications of memory in the infant are considerably subsequent to perception, and exhibit only its passive state: which consists in knowing or being familiar with the object when it recurs, or is presented again. The active state of recollection implies the voluntary revival of our memoranda: and for reasons that will be afterwards adduced, this passive state is the only form that the infant can possess. The term *infant* is always employed in its strictly derivative sense, in-fans, without speech. It is presumed that animals never advance beyond this state of passive memory. The sensitive organs of many species, possess a quicker apprehension and more exquisite susceptibility than man: circumstances that would lead us to conclude their attainment of superior perception: and their recollection of persons and localities seems more durably impressed than we are able to acquire. For those active exertions of memory that man exercises, and which are the efforts of his volition, for the purposes of record and reflection, they have no occasion, as they are the creatures of immediate excitement. It has been previously remarked, that each organ of sense conveyed a distinct kind of intelligence, and it may now be added that they become the sources of memory in a different manner. The organ of vision, which directly receives the impressions of colour, of figure, and of motion, possesses a power of retaining its perceptions in a more independent manner, and in a superior degree, than the other senses. The anatomist will point out a very complicated voluntary apparatus, by which it may be adapted to the different conditions of its objects, whether of magnitude or minuteness, of remoteness or proximity. It is also capable at will of excluding light, the medium by which its perceptions are attained. In proportion to the attention that has been given, its perceptions are distinct and enduring, and are capable of being voluntarily revived, and also of exhibiting to others, by that revival, the proofs of recollection. Thus if I have seen a rose, and attentively viewed it, I can revive at pleasure its visible phantasm: but should this assertion be doubted, I am enabled by the hand and its annexed organ of touch, (according to the rules of design,) of demonstrating my perfect recollection of this visible object, so that it shall be recognised by others. The image of the object is independently possessed, and the co-operation of the hand and touch only promotes the demonstration, by turning to shape that which the sense has retained. The intensity and protracted endurance of visible perception excite those phantasmata that have been described under the denomination of "ocular spectra," which are involuntary, but mostly mutilated recurrences of the actual perception, and these tend to confirm the superior retention of this perceptive organ. The organ of hearing is, in the next degree, retentive of the perceptions it receives, but it is a sense less independent than the eye. Its passive memory in the infant enables it to identify particular sounds when they are repeated; it recollects the soothing tones of the mother, and the peculiarity of her voice, and can discriminate the sounds of the different toys that are contrived for its amusement. These may be considered as deposits on the ear, that are recognised by repetition. The state of active memory in this organ commences when the sound conveys intelligence, and the voice endeavours by imitation to repeat it, which is a voluntary effort. If the eye be subject to ocular spectra, the auditory organ, after the long continuance of forcible sounds, will, on some occasions, have them involuntarily revived. Thus, after dancing many hours to music, on retiring to rest, fragments of tunes will recur to the ear, and these intrusions will not retire by any influence or command of the will. It is to be considered as an involuntary, although imperfect revival of the perception. The perceptions acquired by the olfactory organ, do *not* appear capable of being directly revived by any voluntary effort: thus, if I have smelled a rose or jasmine a hundred times, I cannot by any act of volition revive the perception of these perfumes in their absence, I can only experience the passive recollection of detecting their identity when I smell them again. Even the sight of the flowers at a distance beyond the diffusion of their odour, will not revive the perception. In a similar manner the organ of taste is equally passive, and unable, by any act of volition, to revive the perception of sapid substances, and to delight itself under states of hunger with absent delicacies. Shakspeare has been fully aware of these circumstances:—

> O, who can hold a fire in his hand
> By thinking on the frosty Caucasus?
> Or cloy the hungry edge of appetite,
> By bare imagination of a feast?
> Or wallow naked in December snow,
> By thinking on fantastic summer heat?

Among the phenomena of memory, it is very natural to expect, that events will be registered in the order of their occurrence: provided they be of sufficient importance to excite that vivid perception, which promotes and ensures their recollection. This is the usual order of remembrance, and we accordingly find, that those persons who have been least indebted to the systems of discipline which are termed education, actually recollect in this series of contingencies. It would perhaps be difficult to conceive under the circumstances described how they could recollect, in any other manner, than according to the sequence of events. This simple fact has been dignified by metaphysicians with the title of the doctrine of the association of ideas; a term more imposing, than illustrative of that which really takes place. This kind of memory, where we recollect according to the natural sequence of events, is a mere example of passive recollection: indeed it is a law of our constitution, that subjects revert to us in the order of their occurrence: and this wholesome regulation produces that connexion of our thoughts by which perspicuity and accuracy of description are attained, and prevents the confusion that would otherwise ensue. Independently of this consecutive series of recollections, we are capable of connecting, associating or arranging the subjects of our knowledge, in a variety of ways, both for convenience and dispatch, and for the facilities of remembrance. If an hospital surgeon, of considerable standing, were capable of recollecting the cases he had treated, *only* in the order of their occurrence, his mind would be a vast, but confused accumulation of professional knowledge; and he would be compelled to wade in individual succession, through the whole of his practical experience for the materials of an opinion. To avoid such difficulties, and tedious repetitions, he employs some form of arrangement, and assorts the materials of his information, under the register of different heads, classes or departments. These are voluntary arrangements, or associations of thoughts and opinions, and when formed, contribute essentially to assist the memory. The arrangement of our thoughts, or according to the usual phrase, of our ideas, is an arbitrary distribution, and consequent dislocation of the natural connexion according to the order of events.

As a foundation of our inquiries, the condition of the infant has now been discussed, and the possible extent of its acquirements has been ascertained: but these only amount to the incipient traces of a future mind. In this imperfect state of bodily development, the capacities of intelligence are equally contracted. To this infant, what could the persuasions of the orator, the demonstrations of the mathematician, or the exhortations of the preacher avail? It is found to be susceptible of feeling,—a smile indicates its pleasurable sensations, and it screams with pain:—the objects of this world are obtruded on its perceptive apparatus, and thus its senses are gradually awakened. The same dawnings of volition that direct its muscles, excite the sensitive organ to its nicer adaptations, and by repetition, bestow a higher sensibility on its nerves. With these acquired perceptions some frail memorials are associated: a silent and passive recollection that recognises only by external excitement. Such are the phenomena of the infant's intelligence: and in these possessions the brute enjoys a commanding superiority. But, *animals* are stationary,—MAN is progressive. In animals the period of infancy is short, and they advance rapidly to the ultimate attainments of their nature, both in corporeal perfection, and in the display of their intelligence. In man, the infant season is a protracted space, and many years elapse before his maturity is confirmed—his intellectual range is more ample,—his destination more exalted; and he is exclusively fitted to wield a powerful engine, that renders his perceptions the subjects of communication, and invests his memory with an enduring record. This will be unfolded in the next lecture.

FOREIGN DEPARTMENT.

ON THE CONNEXION OF THE OVARIA WITH THE FALLOPIAN TUBES IN SOME CLASSES OF MAMMALIA. BY G. R. TREVIRANUS.[*]

ALBERS, in an account of the dissection of a common seal, (phoca vitulina,[†]) describes the ovarium of this animal as laying in a bladder, which, like the uterus and its cornua, consists of three coats. He does not give any explanation of the mode in which the fallopian tube opens into this bladder, and appears not to have been aware of the physiological worth of his discovery. Lobstein[‡] found the same formation in the hooded seal (phoca monachus). E. H. Weber, the author of a valuable work on the organ of hearing in animals, wrote to me in November, 1822, saying, "that in the otter the ovaries are suspended in a tunica vaginalis, formed of the peritoneum as the testicles, and that the fallopian tubes open by their fimbriated extremities into their closed cavities.

Three species of mammalia only have been hitherto known in which the ovaries are enclosed in a tunica vaginalis, and having a different local relation to the fallopian tubes than in the human subject. I have certainly increased the number of these species by the addition of the martin (mustela foina). In the female of this animal the sound ovarium is situated immediately before the end of the fallopian tubes, in a cavity which is enclosed by a process of their external covering, and intimately connected with the loose peritoneum. On the under and outer side of this covering, it is closely adherent to it; between the other parts of the capsules and the ovary there is a free space where the fallopian tube opens. The uterine opening of the tube is very narrow. Towards the ovary it increases in size, and at its extremity there is a delicate vascular fold in immediate contact with the ovary. Between the fallopian tubes and the cornua of the uterus there is no perceptible difference. I communicated this discovery to Prof. Weber, who informed me that he had also detected the same connexion between the ovaries and the fallopian tubes in the pole-cat.

It appeared to me very probable, that this formation was not confined to the above orders, but that it might be also common to the whole weasel and bear tribes, and even to other genera, as I recollect passages from the writings of several anatomists, which I now perceive have a relation to this circumstance, but which hitherto were very obscure. Thus, for instance, Collins* mentions an account of the connexion of the ovaries with the fallopian tubes in the bear, which was observed by Stenson,† from which there is no doubt that in these animals the same curious formation exists. The academy of Paris, in their dissection of a female civet, gives the following account:‡ "the very broad fimbriæ of the fallopian tubes extended over the ovaries and covered these," which can have no other reference than to this formation, and Sir E. Home § also makes mention of the capsule of the ovary in the ornithorynchus, in which the fimbriæ of the fallopian tube open into the ovary.

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[*] Tiedemann's and Treviranus's Zeitschrift für Physiologie. I. b. 2s. Heft.

[†] Beiträge zur Anatomie und Physiologie der Thiere. H. 1. s. 21.

[‡] Journal de Medicine, par Leroux.—T. xxxix.

In any case, the ovaries of several classes of mammalia are enclosed in a tunica vaginalis, and within this capsule the fimbriated extremities of the fallopian tubes, not only adhere to the ovaries as they do in other animals during the time of impregnation, but are constantly joined to them. In some of these animals, also, there is no difference between the cornua of the uterus, and the fallopian tubes. But in the glires, both these organs in their width, structure, and connexion, are so different, that they can only be regarded as the complete reverse of these parts in those animals to which I have referred. And although in the latter the passage of the impregnated ovum into the fallopian tubes is so easy, it is difficult to conceive how it takes place in the former, particularly the agouti. In modern times, the apparent difficulty of impregnation in many plants, has been brought forward as proof against the Linnæan doctrine of the propagation of plants. The disputants were certainly not acquainted with the animal kingdom, for they would have been induced, on seeing the formation of the internal organs of generation in the glires, to have attacked the hitherto received doctrines of the propagation of animals, as they had those respective plants. But when a theory is supported by a large number of accurate observations, it is more than probable, that in the small number which appear to contradict the theory, some circumstances have been overlooked, which, if known, would remove the apparent contradiction. I have examined the internal organs of generation in a large guinea pig, for the purpose of ascertaining how the ovaries empty their impregnated contents into the fallopian tubes, and if I have not succeeded in removing all doubt on the subject, still the difficulty of explanation is not so great as has appeared.

The fallopian tubes of the guinea pig are very narrow, and very long, and twisted at their extremity into a kind of knot or loop. Their ovarian opening does not terminate in fimbriæ, but goes into a process of peritoneum, which covers, in part, the ovaries, and is continued along the fallopian tubes and cornua of the uterus. It may be asked, for what purpose are these organs so long, and also twisted at their extremities? If they merely answer the purpose of carrying the matter which is exuded in conception from a small vesicle in the ovarium, into the cornua of the womb, nature might have been much shorter in answering her object. These questions I cannot satisfactorily answer; still I see no reason to depart from the generally received opinion of impregnation. On the contrary, I find, in these animals, the formation of the genital organs confirmatory in two points of the usually received opinion of generation.

First, we find muscular fibres at the extremity of the cornua of the uterus, and on the ovaries, which undoubtedly serve for the passage of the impregnated matter into the womb, which can have no other effect than of approximating these two parts to each other. Secondly, in confirmation of the usual theory of impregnation, I found in the ovary belonging to that cornu which contained only one embryo, one *corpus luteum* only, whilst in the ovarium of the other cornu, in which two embryos were contained, I found two such yellow bodies. I am aware that these bodies have been found in the ovaries of virgins, and in persons where the number of these bodies did not correspond to the number of children which they have borne. But these observations have been made on the human female, on whom irritations of different kinds may produce the same effect in the ovaries as impregnation, and where the impregnated ova pass off more frequently than is generally believed, without being perceived, or are changed into hydatids. I had an opportunity of seeing in a young woman, who died six weeks after her marriage of a rupture of the right fallopian tube, an ovum of the size of a small walnut in the tube, and which only contained water; there was also an hydatid in the right ovary, and two yellow bodies. In animals, nothing similar to this has been observed, and in those cases where more corpora lutea than embryos have been supposed to have been found, a corpus luteum has most probably been mistaken for another body, a mistake which is very easily made in animals.

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* Syst. of Anatomy. Vol. i. p. 643.

† Testiculi in ursa constant plurimis granulis albicantibus instar ovarii piscium; tubarum extrema expansa illos adeo undique includunt, et parvulum duntaxat foramen in abdomen pateat, quo dilatato sponte elabuntur testiculi.

‡ Hist. des Animaux. Tom. i.

§ Philos. Transact. 1802.

M. Treviranus has illustrated these observations by a plate of the female organs of generation in the martin and guinea pig.

ON THE ALTERATIONS OF THE SPLEEN IN INTERMITTENT FEVERS. BY A. N. GENDRIN. (Journal Génér.)

This paper is a kind of *resumé* of the facts and different opinions which have been published, on the alterations of the spleen in intermittent fevers. M. Gendrin has come to the following conclusions :—

That the spleen is frequently enlarged in intermittent fevers, and sometimes to such a degree as to cause a mechanical impediment to the functions of the digestive organs. The size of the spleen considerably increases, particularly in its longitudinal direction. Under these circumstances, the structure of the spleen is not altered ; its vessels remain permeable, and from its increase in size and thickness, it may experience a certain degree of displacement.

The softening of this organ is the immediate effect of certain severe periodical fevers, or the consequence and termination of some old splenic congestions. The softening of the spleen may be of two kinds : 1st. Idiopathic, that is to say, not appearing to depend on any morbid affection of a different nature ; 2d. Inflammatory, that is to say, depending on the inflammation of the spleen. A direct communication seems to exist between certain alterations of the blood ; the spleen, when congested and softened in fevers, may be ruptured, by every cause acting on its tissue, either mechanically, or by increasing its congestion. A rupture of this organ may take place spontaneously during the progress of this disease.

The chronic congestion of the spleen from intermittent fever, frequently causes fatal gastro-intestinal hæmorrhages ; in this case the spleen is softened and congested with black blood, as when it is ruptured. The gastro-splenic veins are dilated and varicose, and sometimes even ruptured. The spleen is immediately relieved of its blood by hæmorrhage, which takes place into the digestive canals by the gastro-splenic vessels. This occurrence may be salutary, inasmuch as it tends to destroy the morbid state of this organ.

ON MENTAL ALIENATION. BY M. GUERIN DE MAINERS, D. M. P.—(Journ. Comp.)

If we look into any of the modern writers, we shall find that most consider mental alienation as an inflammation of the meninges of the brain, or of the brain itself, and they adduce facts in support of this opinion. The author of this paper endeavours to refute it.

If it were true (he says) that mental alienation was owing to the inflammation of the arachnoid, or pia-mater—if this disease depended on the alterations of these membranes which are found at post-mortem examinations, and which constitute the anatomical characters of the inflammation of these parts, the predisposition to alienation would be a predisposition to arachnitis. The common inflammation then of the arachnoid, (and this can scarcely be conceived without the pia-mater participating in the complaint,) would commence with the same symptoms, and in the same manner, as madness. The symptoms of mental alienation and *meningitis* would make their appearance at the same time ; these two affections would proceed simultaneously, or rather would be confounded in one, and, after death, on comparing different cases, it would be found that mental disturbance has been considerable in proportion to the extent of the meningeal alterations. But this does not take place ; arachnitis and mental alienation do not attack the same age, nor the same temperament : they do not follow the same order of causes ; do not make their appearance in the same manner, and as to the appearances observed after death, it is certain that the brains of mad people are often opened, in which no traces of inflammation of the meninges are found, whilst very considerable alterations are met with in these membranes, without any disturbance of the mental functions, except in the delirium which is generally observed towards the approach of death. Indeed, in cases of madness, where the symptoms are developed to the highest degree, the appearances after death are sometimes most unsatisfactory. Hence, if thickness of the membranes, granulations, effusions, are found in those who have died mad, how can it be asserted that these are the *cause* of the symptoms of madness? Hence mental alienation, and inflammation of the membranes, are affections really independent of each other. According to M. Guerin de Mainers, it is equally as impossible that the alienation should supervene on lesion of the cerebral mass, since every moral and intellectual cause which gives rise to it, cannot effect any change in the organic condition of the brain, but consecutively, on a modification of its vitality. Consequently, he attributes symptoms of alienation to a *primitive* alteration of these organs, for to behold, especially in the alteration of the meninges, the organic condition, the anatomical character proper to alienation, although this may have no sensible character, is evidently an error, and (what is most important) likely to lead to a neglect of the treatment of the disease, when it merely consists of a disturbance in the mental faculties, and in the corresponding organic actions, without any real lesion. For irritation which, in the commencement, is itself a result of excitation, becomes in its turn the cause of a new series of phenomena which belong to inflammation, and which are generally beyond the resources of art.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

CONTINUATION OF THE CASE OF ANEURISMAL DISEASE OF THE TEMPORAL ARTERIES.

CIRCUMSTANCES of rather an unexpected nature having occurred in this case, we are induced thus early to resume the thread of our narrative.

On the 10th day after the operation, the protrusion of the eye-ball had proceeded to a great extent. Effusion of serum between the conjunctiva and sclerotic coat to a considerable degree had taken place, forming in a marked manner that state which has been denominated "chemosis;" but little inflammation of the coats of the eye existed. The wound seemed now to be healing. The tumour being much diminished both in size and strength of pulsation, it could with the slightest pressure be completely emptied of its contents, and it did not fill again till after a considerable lapse of time; but the patient was unable to bear pressure continued long, a degree of headach and stupor being immediately induced. Two small abscesses had formed, probably from his long continuance in the same posture, under the integuments of the back of the neck, and of the posterior part of the scapula, which were discharged. On the 18th, the eyeball being prodigiously pushed forward, a slough was observed to be forming at the upper portion of the sclerotic coat, which rapidly extended through the tunics of the eyeball, and the evacution of the contents was the speedy consequence. The violent pain in the orbit, which he had from this protrusion experienced, now subsided. It is impossible, we think, to conceive any reason for this distressing occurrence, except that which we so fully entered on in the previous report.

On the 25th day, every symptom having subsided, the ligature was spontaneously discharged, the edges of the wound being universally adherent except at that point where it made its exit. The state of this interesting patient, (now three weeks since the carotid artery was tied), is,—the wound has completely healed, the size of the tumour nearly one half less. It is flaccid and easily emptied of its contents, some time elapsing before it again fills. Pulsation in it slight, and only at times perceptible in its centre. The integuments covering it have resumed their natural appearance. The temporal, occipital, and posterior aural arteries do not pulsate. If pressure be made on the tumour, a sense of headach and oppression of the brain is immediately produced, but this has become less marked of late.

The further treatment which Mr. Wardrop intends to adopt as soon as the patient can bear it, will be the compression of the tumour, but as the vessels of the dura mater are in every likelihood affected, it is not, we think, improbable that a bad effect might thus be produced on the encephalon itself.

CASE OF GONORRHŒAL OPHTHALMIA.

The following case affords an unequivocal specimen of that most severe and rapid disease, gonorrhœal ophthalmia, where the origin of the complaint could be distinctly traced to the contact of the matter discharged from the urethra with the eyeball, and exhibits a striking instance, from the powerful remedies employed, of the difficulty, we might almost say impossibility, of arresting its progress.

Several systematic writers have asserted, that when the puriform discharge commences in the eye, that from the urethra ceases, and have thus endeavoured to prove the doctrine of translation. Mr. Wardrop, however, has never seen a case of puriform ophthalmia assuming the gonorrhœal character, where it could not be traced to arise from the direct contact of the infecting discharge. Nor in a majority of his patients, has there been any diminution in the urethral secretion, when that from the conjunctiva was flowing in the most copious quantities.

CASE. ——, a full, plethoric young man, about thirty years of age, came to the Hospital for a severe inflammation of the right eye. On examination, the conjunctiva is found to be exceedingly inflamed; the red vessels, which are very numerous, run in a straight direction, and appear as if quite gorged with blood; the cornea, generally, is hazy, but in its superior half there is a very extensive slough, unlike in appearnce that produced by acute idiopathic ophthalmia, but resembling that state of sphacelus induced by the application of a powerful caustic, as of lime. The conjunctiva lining the eyelids, is swollen and very vascular, and their exterior surface is red and excoriated. From the eyeball and the mucous membrane of its lids, there is a very copious discharge of thick, white, purulent matter. He complains of excessive burning pain in the eye, which is very constant, and of general headach. These symptoms are accompanied with febrile action, in rather a severe degree. Pulse 100, full, and considerable heat of surface.

States that the eye became affected with redness and pain about a week ago, which was soon followed by a thick discharge, which is daily increasing in quantity. After some cross-questioning, he admitted that he had laboured under a gonorrhœa for ten days previously, of which he took no care, and recollected having rubbed his eye with his finger, after it had been in contact with the matter. Since the commencement of the discharge from the conjunctiva, that from the urethra has suffered no diminution. He had been twice bled by Dr. Titleo, previous to his admission.

Mr. Wardrop directed that he should be instantly bled to syncope, and have a smart purgative draught.

In the evening the severity of the symptoms continued unabated. He was again bled to syncope, a large quantity of blood being taken away before that state was induced, and he was now ordered nauseating doses of the tartrate of antimony.

Next morning these measures had produced little relief; the sloughing of the cornea was evidently extending, and the pulse continued strong. Again bled to syncope. Leeches in the evening to the temple, and small doses of calomel to be taken every two hours.

On the third day the pulse was lowered, but still strong; the slough of the cornea appears to be very deep as well as extensive; the discharge continues in the same quantity. Again bled to syncope; other means continued.

On the 4th day, the slough having extended through the cornea, the humours escaped, and a collapse of the eyeball was the consequence; this was attended with immediate relief; the discharge gradually diminished, and the man shortly after was dismissed, although of course with the irreparable loss of the organ.

Mr. Wardrop, in taking a review of the case, stated, that he had no hope of saving this patient's eye, for he had never, by any treatment, been able to arrest the progress of gonorrhœal ophthalmia after it had proceeded, as in this instance, to the formation of a slough.

In a paper on this subject in the last Number of the Edinburgh Medical and Surgical Journal, that experienced ophthalmist, Mr. Wishart, informs us, that, in his whole life, he had only met with one case, (that which he relates,) where the progress of the disease was stopped before it produced irremediable loss of vision.

CASE OF ENORMOUS EXOSTOSIS OF THE STERNUM.

In a former Number, we related an extraordinary case of osteo-sarcoma of the ilium and femur, where the bony growth measured 24 inches in circumference, and which is now rapidly tending towards a fatal termination. The following account will show to what a size pure exostosis can attain, and will likewise exhibit the difference between it and the true osteo-sarcomatous enlargement.

————, about 50 years of age, was sent to the Hospital by Dr. Scott, of Barnes. Arising by a very broad attachment, from nearly the whole of the sternum except the superior part of its upper bone, adhering to the cartilages of the ribs and extending so far outwards as to elevate the papillæ, is a very large osseous tumour, measuring eighteen inches in circumference; its surface, which is smooth and not marked by any of those protuberances which were a distinguishing feature in the case of osteo-sarcoma, is evidently composed throughout of the same solid materials, and does not afford to the finger that feeling of elasticity which was experienced in the other, at those places where the fleshy intermixture existed. The integuments covering the swelling are much stretched, and have become, at the most protuberant point, inflamed.—The disease is attended with little pain, and is principally inconvenient from its size and weight. His general health is in a very indifferent state; he is dyspeptic, subject to rheumatic attacks, and occasionally suffers from dyspnœa.

The tumour commenced nine years ago, without any apparent cause, with general enlargement of the sternum at that surface where it is now attached, which has gradually increased till it has assumed its present immense size.

The treatment recommended was, great attention to the general health, the use of alterative medicine, the repeated application of leeches to the tumour, and after the employment of these means the insertion, at its base of two or three small setons.

THE LANCET.

London, Saturday, October 13, 1827.

There is no part of the system of medical education pursued in this country, which more excites the astonishment of foreign professors, who occasionally visit our public institutions, than the practice of what has been not inaptly called *walking* the hospitals. A foreign physician, who had accompanied a surgeon with his suite of pupils through the wards of one of our hospitals, asked, at the end of the perambulation, what was the method of clinical instruction adopted at that institution; a question which reminds us of one that was recently put by the Duchess of Berri, who, after witnessing for the first time a match of cricket played by a party of English gentlemen at Dieppe, inquired with much *naïveté*, when the game was to begin! Whether the surgeon felt embarrassed by the question addressed to him on the occasion to which we allude, we are not prepared to say; he probably felt no embarrassment, for the conscience of men who have so long pocketed the money of their pupils, without giving them an equivalent in instruction, must be tolerably case-hardened. But he well knew, at any rate, that the *farce* which the foreigner had just witnessed, comprehended all of clinical instruction that his pupils ever received; he well knew, not only that his pupils never saw more at the bed side of the patients, than they had been able to see during that perambulation, but that they were expressly prohibited by the "regulations" of the institution, from approaching the patients at any other time. If, therefore, a candid answer had been returned to the inquiry of the foreigner, it must have been to this effect:—"You have already witnessed our scheme of clinical instruction; we *walk* through our parts in a way which may not be very intelligible to continental professors, and while you are expecting to see the curtain rise, our performance has concluded!"

Unless pathology could be taught, as the Peripatetics learnt philosophy, by a course of *walking*, the pupils of hospital surgeons must of necessity be as ignorant of this most essential branch of medical knowledge at the termination, as at the outset of their professional studies. At the majority of our hospitals, no facilities are afforded them for ascertaining the nature of the cases of the different patients, or the mode of treatment which has been adopted in those cases. They hear nothing descriptive of the various diseases on going through the wards with the medical officers, for no observations are addressed to them, and the majority frequently cannot even see the patient, whose case is the subject of inspection. We are aware that these observations do not apply to all our hospital surgeons; some of them, more especially Mr. Lawrence and Mr. Green, have endeavoured by their personal exertions, to supply the want of a regular system of clinical instruction in the institutions to which they respectively belong. The want of such a system operates most injuriously on the interests both of the medical student and of the public. It is an injury to the medical student, because he is deprived of those facilities for acquiring professional knowledge, to obtain which, he has administered largely to the cupidity of his pretended instructors; and it is an injury to the public, because the early practice of medical men, who are obliged to embark in their profession without the advantages of clinical instruction, must necessarily be attended with much uncertainty and hazard.

If it be said that the perfunctory manner in which hospital surgeons and physicians discharge their duty as teachers, in going round the Hospitals, is compensated by frequent references to existing cases in their lectures, we reply in the first place, that such references are rarely made;* secondly, that *pathology* can no more be taught in a course of *lectures,* than *anatomy* can be taught in a course of *lectures.* A student must dissect for himself, in order to acquire a thorough knowledge of the structure of the human body, and he must see disease in the living subject, to be capable of discriminating one morbid affection of the body from another. He must further see disease in its successive stages, and under the influence of different therapeutic agents, before he can estimate the comparative advantages of different modes of treatment; and if, under the existing system, he cannot acquire that knowledge which is to be gained only by instruction at the bed side of the patient, he must commence the practice of his profession in the dark, and the implied contract under which hospital surgeons are bound to impart professional information for the money they receive, is dishonourably violated.

Towards the close of the last season, not a week passed in which we did not receive communications from students, complaining of the gross negligence and inattention of hospital teachers. At one hospital, we were informed the three surgeons had resolved not to visit the patients oftener than three times a week (forbidding the attendance of the pupils in the intervals,) and that they had further entered into an agreement to go round the wards on the same days, and at the same hours; so that it was of course impossible for any of the students to see more than one-third of the practice of that institution. Many of the surgeons reside at a great distance from the hospitals, and are most irregular in their attendance. It is no uncommon occurrence for a surgeon to make his appearance an hour and a half or two hours after the period appointed for his visit; hence the student not only loses his time in waiting, but is probably deprived for that day of the instruction he might have derived from attending lectures elsewhere. The want of tickets at the bed's head of each hospital patient, specifying the nature of his disease, has also been much complained of. Such a specification would be the first step towards a system of clinical instruction, and it is the interest of pupils to urge the adoption of this plan, exactly in proportion as it is the interest of *some* hospital surgeons and physicians to oppose it. We admit that in many cases it is not possible to name with certainty a patient's disease, and that the general plan, therefore, must be subject to some limitations; but there would be this benefit attending its adoption, in addition to the more solid advantages to be derived from it, that, where signal instances of ignorance and hallucination occur, we should have these instances put upon record. If, for example, a physician should mistake a case of aortal aneurism for bronchitis, and, in consequence of that mistake, direct the operation of bronchotomy to be performed; if the same physician should mistake the efforts of nature to expel the fœtus in the ninth month of gestation for a case of peritonitis, and in consequence of that mistake, direct the abdomen to be leeched and diligently fomented, such instances of incredible ignorance and temerity would at least be put upon record.

At the commencement of the medical session, the pupils possess in a great degree the power of remedying evils, of which it will be useless to complain at a more advanced period of the year. Let them meet and temperately discuss the question, whether the money which they pay to the surgeons, is paid merely for the privileges of *walking* in the wards, and of witnessing operations; or whether it is paid under the understanding that they shall receive for it an equivalent in clinical instruction. If they shall be of opinion that there exists at any rate an implied obligation on the part of the surgeons to impart instruction for the money they receive, let them respectfully claim from those gentlemen the fulfilment of the obligation. It is a part of the public duties of hospital surgeons to perform operations, and the discharge of this part of their public duties is no discharge of the private contract which they enter into with their pupils. It is also a part of their public duties to visit the hospital patients, and the mere visiting of those patients, without any attempt to convey clinical instruction to the students, is no discharge of the private contract which they enter into with those gentlemen. If the legitimate inference from these facts is, that hospital surgeons derive a large income from their pupils, while the pupils receive nothing in return for the money which is extracted from them, it is high time that an end should be put to a system that is not only injurious to the interests of students, but to the character of medical teachers; and when we consider that it is not less the interest than the duty of hospital surgeons to attend to the respectful, but firm remonstrances of those to whom they are indebted for so large a portion of their incomes, the pupils may rest assured that they have the remedy in their own hands.

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* In numerous instances, the surgeons do not hold appointments in the theatre of anatomy connected with the hospital; thus, at Bartholomew's, for example, Mr. Lawrence is excluded from the lecturer's chair, because, according to the "straight-forward man," he is not so "*competent*" to discharge its duties as Stanley, *who is both "willing and competent."*

ON MEDICAL EDUCATION.

It has been remarked, "that persons who have not partaken of a liberal education, are not likely to have a just idea of its value or extent." An expertness in arithmetical calculations—a proficiency in penmanship — a smattering of French, and perhaps a little Latin, however superficial the knowledge of it may be, constitute the sum and dictate the limits of what is vulgarly called "a liberal education!" This, indeed, or less, may suffice for him whose pursuits are to be commercial; these acquirements may be sufficient to calculate profit and loss, or to enable a man to acquire a competency or to amass the million. Let me not, however, be supposed to depreciate at all the value of arithmetic and the advantage of writing a free and legible hand. "Arithmetic furnishes a fine exercise for the mind in its favourite employment, the pursuit of truth;" but surely he, whose object is the attainment of a scientific profession, ought previously to have employed more advantages than these.—Surely time employed, by such an individual, in classic studies, cannot be deemed by any uselessly and unprofitably spent; to this it would reasonably be expected no objection could be urged: but how is our surprise excited, when not only the indolent and the ignorant, but even those of whom different sentiments would have been anticipated, defend a quite contrary position. We are almost tempted to say of such, with Quintilian, either "damnant quod non intelligunt;" or, with Lady Jane Grey,—"Alas! good folke, they never felt what trewe pleasure ment." We should certainly have thought that the *necessity* of classical knowledge to a medical man could never have been denied; but the contrary obtains, for we are every day assailed by such ungrateful opinions as these; namely, that the Latin and Greek are dead languages; that a man may be a good physician or surgeon without a knowledge of them; that the same neceesity now as formerly does not obtain, for, say these contemners of philological studies, "books are now no longer written in Latin, nor are lectures delivered in that language; that science is fast disburthening herself of those barbarous technicalities, formerly like chains imposed upon her and coined from these dead languages, and that many of the most eminent of our profession were quite ignorant of them, among the number of whom they enumerate the great Harvey, Sydenham, and Hunter. "I cannot understand," says an elegant author, "how it is possible for a physician to acquit himself with tolerable credit, unacquainted with Greek. Almost all the terms he uses are Greek words, written in Roman characters, 'Græco fonte cadunt.' The practitioner in medicine would find his employment much easier and pleasanter, and his character more respectable, if he were instructed in the meaning of the words which he every day uses, and which he cannot clearly and fully understand, without knowing the language from which they are immediately, and without alteration, transplanted." Some modern writers are, indeed, of opinion, that Greek is neither useful nor ornamental; but even these, in advising "not to waste so much time as even to learn the Greek alphabet," make an exception with respect to divines or physicians.

But what advantages, we may be asked, do you promise us from the study of these boasted languages of polite Athens and ancient Rome, since all the monuments of their philosophers are rendered into our own tongue? The study of language, abstractedly considered, we would reply, greatly improves the understanding, imparts to the mind a habit of investigation, and enables it to give utterance to its ideas in terms at once vigorous, clear, and precise. From the study of Greek and Latin, in particular, many advantages may be derived: in the first place, *an acquaintance with these languages facilitates the acquirements of our own.* This may be denied by some, but the assertion is not the less true; it can be denied only by those whose investigations have not trangressed the limits of their mother tongue. Erasmus, in one of his letters, goes so far as to say—"Hoc unum expertus video, nullis in literis esse aliquid sine Græcitate." And Cicero, addressing his son Marcus, says,—"Ut ipse ad meam utilitatem semper cum Græcis Latina conjunxi, neque id in philosophia tantum, sed etiam in dicendi exercitatione feci, idem tibi censeo faciendum, ut par sis in utriusque orationis facultate." But further, let any one engaged in anatomical pursuits say, if a knowledge of the Latin and Greek would not (supposing him to be ignorant of them) have expedited his progress; whether it would not have softened down those asperities which beset him at every step, and have made smooth the track along which he must press his arduous way, if excellence he would attain therein. Let some, whose eyes this may meet, say if a tolerable knowledge of either of these languages would not have spared them many mortifications, many, indeed, arising from the pity bestowed upon them by their more intelligent companions. And can the human mind endure this, without an effort to emancipate itself from its thraldom, without an endeavour yet "to be first, and rise above the rest," notwithstanding all difficulties to strive to attain such a degree of excellence, that shall at least command respect? Can any one of feeling be, as it were, a target to the shafts of ridicule and contempt, and not be roused from that pitiable apathy by a spirit of emulation that would lead him "to brook no superior and to scorn an equal?"

It has been urged that a knowledge of Latin is of no importance to an apothecary. Is it not indeed? We dare affirm, that not only is a general acquaintance with it necessary, but even a grammatical knowledge of it. To what mistakes may not a grammatical error lead, and yet it is asserted, that it is of no use! These morbid dogmata gain ground, and bid fair quickly to exile for ever the most perfect, copious, and beautiful of languages! What remedy can be applied, and to whom can we look, for its administration? We have been informed, and that on good authority, that it is the intention of a certain body to make its examinations more strict. In these proposed alterations, would it not be advisable to substitute for the Pharmacopœia Londinensis, some more scientific book, as a test of the competency of candidates in the Latin language—some book in which there is not so constant a repetition of the same words, and one that would require a more particular acquaintance with the grammar. Could a better book for the purpose be employed, than the "Conspectus Medicinæ Theoreticæ" of Gregory—from which the candidate should read a passage, and give the grammatical praxis. Some such expedient it would be advisable to pursue, for it is a notorious fact that the Pharmacopœia is almost committed to memory, by means of interlinear translations; and we know it to be a fact, that some can give you the meaning, or, as it is called, translate the book in any part, *except the preface*, who know not an adjective from a substantive—how to decline a noun, or conjugate a verb—and yet such they are, who having passed their examination, are presumed to have a "competent" knowledge of Latin; and these are they who assume to themselves the office of judges, as to the utility or inutility of the Latin or Greek. As to the latter, it is to be feared that its existence is almost forgotten. Would it not contribute more to the respectability of the profession, if a knowledge of these languages were insisted on, than the enactment of certain and sundry by-laws, that tend chiefly to trammel indigent merit, and to encourage monied indolence and ignorance. Let it be required, that candidates translate from the Greek Testament. Why should not the examinations be more liberal, and less technical? To these suggestions no doubt it will be exclaimed, what nonsense! What is the use of Greek? How is it possible to know every thing? What time is there to acquire all this classical information? To such I would answer, "that a knowledge of Greek will contribute greatly to adorn the gentleman, while it is essential to the scholar. It will lead him to the fountain head—it will enable him to judge of composition with taste—it will point out to him with precision, the meaning of many words in the English language which are daily used, and of far the greater number of technical terms in every art and science. Again, to the plea of want of time, let me reply, that the five years, for the most part so unprofitably spent as an apprenticeship, afford abundant time both for the ordinary business of the surgery, and for the improvement of the mind. Progress in Greek is not such a Herculean task as is generally imagined, if the foundation have been previously well laid at school. But it is to be feared, that all thought of improvement too frequently is thrown aside with the authority of the schoolmaster, and that the example and precept of the new governor tend not a little to encourage the indifference of the apprentice to all other pursuits than those that more immediately concern the shop. Often have we heard such barbarous sentiments as these, from more than one, "Come, come, don't pore so much over that Latin and Greek, it will be of no use to you, put away those books—dust the bottles, and see what pills and ointments are deficient, and supply them!"

In fine, the absurd arguments, if arguments they may be called, thus boldly and unblushingly advanced, and with such effrontery maintained, tend to prove to what a low ebb education is subsiding among the rising race of medical men. I may, perhaps, be thought to have too high an idea of what constitutes a perfect medical character, but I conceive too much can scarcely be expected, when we consider to what a pitch the affectation of superior knowledge in some ascends. A professional man ought to be a man of studious habits—of classical education, and endowed as much as possible with those qualities that highly adorn the scholar and the gentleman. Why should medical education be less liberal in this country, than it is on the continent? Is it because in France, for instance, her institutions are more liberal than here? "Fas est ab hoste doceri."

If the attention of any be arrested by the importance of the subject of the preceding remarks, to them I would say—if hitherto you have neglected the study which is here recommended, do not be deterred from the attempt by the apparent difficulty of the work; or, if you be somewhat advanced in years, let not the idea, that it is now too late to begin, prevent your forming a determined resolution, cost what it will, to make the attempt. It is said of Socrates, that he was found playing on the lyre, and strumming away upon the strings, when somebody came up and said, What! are you, at your time of life, playing on the lyre? Aye, said he, it is better to learn a thing late, than not to learn it at all. You may, at first, appear to make no progress, and hence may arise a cause of despair—but "nil desperandum"—"Sicuti enim horologii umbram progressam sentimus, progredientem non cernimus; et fruticem aut herbam crevisse apparet, non apparet crescere, ita et ingeniorum profectus"—"Crescit occulto velut arbor ævo."

Vale.

London, Sept. 26, 1827.

We are gratified to learn that a subscription is in progress amongst the pupils of the Borough Hospitals for Mr. Cooke, and we hope that their laudable example will be followed by all the medical schools in the metropolis. The approbation of the students would prove more grateful to the feelings of Mr. Cooke, than the amount of any sum of money, however large.

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MEDICO-CHIRURGICAL SOCIETY.

The first Meeting of the Society for the season took place on Tuesday evening, and was very numerously attended.

B. Travers, Esq. President, in the Chair.

A highly learned and practical paper on the nature, diagnosis, and treatment of erysipelas, written by Mr. Lawrence, was read, of which we subjoin the following short abstract:—

The author considered the division of erysipelas into erythema and erysipelas phlegmonoides to be the best, both because these terms sufficiently pointed out the real nature of the disease, and because they were now universally received and understood on the Continent. He considered them to designate, not two distinct diseases, but merely different stages of the same affection, varying only in degree, and frequently terminating in each other. Erythema he defined to be an inflammation of a peculiar kind, confined entirely to the cutis vera, which produced some degree of swelling, only perceptible when the finger was traced over the surface of the skin, and not accompanied with much redness. The affection rapidly extending to the neighbouring sound skin, and leaving one part while it attacked another, thus traversing during its course a large portion of the body. Erysipelas phlegmonoides, on the other hand, he conceived to be that state where the disease affected not only the skin, but also the membrane into whose cells the fat is deposited, and also the proper cellular structure. In this case the redness, heat, and swelling are present in a marked degree, and are soon followed by effusion of serum into the cellular membrane, which creates great tension, and soon terminates in sloughing and suppuration of the cellular structure. The disease in this stage also spreads with great rapidity. The difference between this state and the diffuse cellular inflammation so accurately described by Dr. Duncan, junior, is, that in the latter there is present no redness in the skin, a symptom which is remarkably striking in the erysipelas phlegmonoides, while true phlegmon is at once distinguishable by the inflammation in it being circumscribed, whereas in the former it spreads with astonishing rapidity. The opinion of Mr. Copland Hutchison, first published in the Transactions of this Society, and afterwards in his Surgical Observations, that the seat of erysipelas is in the fascial and tendinous aponeuroses of the muscles, is highly incorrect, its situation being without doubt in the skin and cellular membrane. In none of Mr. Lawrence's cases has it ever extended below these textures. The nature of the disease is unquestionably one of an inflammatory kind, proved in the most convincing manner by its symptoms, redness, heat, and swelling, by its progress, and in a marked manner by its terminations, the effusion of serum, and subsequently sphacelus and suppuration. The opinion of Bateman and Willan, that erysipelas is an exanthematous disease, is evidently erroneous, as it frequently appears in consequence of wounds. It seems to hold a middle station between the exanthemata and pure phlegmon. Both stages of the disease, but of course more especially the phlegmonoid, are accompanied with febrile symptoms, frequently to a very severe degree, and evidently of the inflammatory kind. Erysipelas may be preceded by constitutional symptoms, when it is denominated idiopathic, or it may be the consequence of wounds, ulcers, or other external causes, being afterwards followed by the constitutional symptoms. In the surgical practice of hospitals, Mr. Lawrence ascribes its appearance to the employment of stimulating applications to sores, and the use of tight bandages, or other irritating treatment. Although several cases have been published, tending to support the doctrine of the disease being contagious, the results of his observations are entirely opposed to such a conclusion. With the view of the pathology of the disease which he entertains, his treatment, of course, corresponds. He deprecates, in the strongest terms, any other than the employment of antiphlogistic remedies, and on no occasion whatever does he conceive, that bark, wine, or any stimulant, ought to be given, except in some very rare instances of old debilitated people, where bleeding had been already employed, and who were approaching the last stage of the disease. The treatment which he universally follows, is the use of blood-letting to a considerable extent, and of mercurial purgatives, and of antimonials frequently repeated. If these do not arrest the progress of the disease, he then pursues the plan recommended by Mr. Copland Hutchison of making incisions, these have the powerful effect of relieving the tension which is always present to a great extent; and, moreover, they abstract from the inflamed vessels themselves a quantity of blood which, if taken from the general system, would probably produce a debilitating effect. He employs these incisions at all stages of the disease, if it cannot be arrested by the general treatment already recommended. If the state of inflammation only be present, the relief to the tension is apparent, by the great gaping of the wound, and a great diminution in the redness of the part immediately takes place. If the effusion of serum, or sloughing of the cellular structure, or suppuration have ensued, their discharge produces the happiest effect. In short, he employs the incision in every stage of the disease, although it acts favourably from different causes at the various periods. The incisions which he makes are not small and numerous, he prefers one of considerable length, both because it is attended with less pain, and because its effects are more immediate and more powerful. This obviates the necessity of Mr. Cooper computing the length of the sum total of many small incisions. His incisions never extend through the fascia the object being merely to divide the cellular membrane. He allows the divided vessels to bleed freely, but occasionally it is necessary to tie them, if the hæmorrhage be long continued. Mr. Lawrence is also frequently in the habit of applying leeches to erysipelatous surfaces, from which he has obtained the highest benefit. The fear of gangrene arising, in consequence of their bites, is erroneous. The practice of Baron Dupuytren, of applying blisters to the neighbourhood of a part affected with erysipelas, he thinks highly of, and on one occasion tried it, the blister being placed partly on the sound and partly on the diseased skin. The inflammation in this instance was arrested, but as other means had at the same time been employed, its efficacy was involved in doubt. A practice has lately been adopted on the Continent of compressing erysipelatous limbs by means of bandages, but the accounts of its success were so marvellous that he was led to doubt its efficacy.

Mr. Lawrence in conclusion observed, that although the practice of incision had, in his hands proved eminently successful, yet on one occasion his patient seemed to have died from the bleeding.

The reading of this case and several others in proof of his opinions was deferred till the next Meeting.

Dr. Gregory wished to know from Mr. Lawrence, whether he intended his remarks on the efficacy of incisions to apply to *idiopathic erysipelas* as well as to that which occurred after surgical operations, and whether he had employed them in erysipelas of the face. He at the same time related a case which had occurred in the Fever Hospital of idiopathic erysipelas.

Dr. James Johnson had seen the practice of making incisions employed in the fleet to a great extent, 15 years ago, and he considered it to be a very admirable practice. He did not agree with Mr. Lawrence in his pathology of the disease, but we could not understand what view of it Dr. Johnson himself entertained, or wished to promulgate.

Mr. Brodie had been for several years in the habit of making incisions, in a disease of the scalp following injuries of the head, which resembled erysipelas, and with the happiest effects, and in many other cases he had employed them with great benefit.

Mr. Lawrence had only practised the method of incision once, in erysipelas of the *eyelid*, but with relief; he undoubtedly meant his observations to apply to every kind of erysipelas, whether idiopathic or secondary.

Dr. A. T. Thomson passed a very high encomium on Mr. Lawrence's paper, which he characterised as by far the best which had been read in the Society for a very long time.

Dr. James Johnson had not tried Mr. Lawrence's plan. He thought that although the antiphlogistic treatment was in many instances the best, still there were not wanting some where an opposite plan was decidedly more proper.

Mr. Travers had never found it necessary to practise incisions in erysipelas, and he thought he had been as successful in his treatment of it as his neighbours; he never employed bloodletting more than once, and then not very freely. His plan was to exhibit nauseating doses of the tartrate of antimony for two or three days, and then to employ bark; but in a great many instances he had found the most decided benefit from the use of bark and other tonics and stimulants, and which, at the commencement of the disease, he had often seen highly useful in the practice of others, even in cases where he would have employed the antiphlogistic treatment, if the patients had fallen into his own hands.

The Society was then adjourned.

LONDON MEDICAL SOCIETY.

Dr. Haslam, President, in the Chair.

On account of the unfavourable state of the weather, the attendance on Monday last was small, but the discussion which ensued on the recital of the following case by Mr. Iliff, was of an interesting character.

Mr. Iliff called the case one of "*spontaneous paraplegia*," and gave the particulars of it nearly as follows:—The patient was a young gentleman of 25 years of age, of regular habits, who became indisposed in the summer of the present year, complaining of a gradual diminution of strength, and of pains about the wrists and ancles, which were not of sufficient importance to prevent him from attending to business. Toward the end of August, he experienced a slight difficulty in voiding his urine, but when it began to flow, its passage was uninterrupted.

On Saturday, the 1st of September, his bowels being rather confined, he took a pill composed of the compound extract of colocynth, camboge, and calomel, and on the following morning (Sunday the 2d) a Siedlitz powder. His bowels were freely purged; he walked to the Philanthropic Chapel, and afterwards to Fleet-street to dinner. He expressed himself as extremely weakened by the purgative, and in the evening he vomited the food he had taken during the day; he found also a tightness about the bladder, and a difficulty in passing his urine, so much so, that ten or fifteen minutes elapsed before it began to flow. The weakness of his lower extremities increased, and a coach being procured, he was removed to his lodgings in Walworth; he got up stairs with difficulty, and at half past ten, p.m., said Mr. Iliff, I was requested to see him. I found he walked with difficulty across his room, and his utmost efforts were scarcely sufficient to enable him to get into bed. The sense of feeling appeared natural; no pain was experienced upon firm pressure being made along the course of the spinal column. The bladder had been nearly emptied by its own efforts; there was still, however, a degree of uneasiness upon pressure being applied over it. His mind was perfectly collected; he had no headach, or any febrile symptoms. I ordered him grs. xx. of the liq. potassæ, and grs. viij. vin. opii in camphor julep every four hours, and directed a fomentation of poppy heads to be applied over the pubic region.

On Monday the 3d, I found him somewhat more comfortable; pulse natural; no headach or symptoms of cerebral excitement; the urine had dribbled away in considerable quantity. His bowels not having acted, I gave him an alkaline aperient mixture, and some colocynth and blue pill at bed time; the sensibility of the lower extremities natural, but the power over them rather less than the day preceding.

Tuesday, 4th. The power over the lower extremities nearly gone; has had slight pain in his loins; no sickness or headach; pain over the bladder much less; urine still dribbling; but an attempt being made, about four ounces passed in a full stream. The bowels not opened, I therefore ordered some calomel and rhubarb, to be followed by divided doses of a mixture containing ℥i. mag sulph.; ʒi. m. c. &c.; I also directed the spine to be rubbed well with a stimulating liniment.

Wednesday the 5th. Has had considerable uneasiness during the night along the back and under each scapula, but this immediately subsided upon his position in the bed being altered; the urine still dribbling, but no power to force it away. The bowels not having acted since Sunday, I ordered a clyster of castor oil, senna, &c. to be administered, and requested the aid of my friend Mr. Callaway. We met about two o'clock, and the result of our consultation was, the introduction of the catheter, to be repeated night and morning; the application of a blister of eight inches long and three broad on either side the vertebral column, and the administration of ammonia and cascarilla during the day, with 5 grs. of Plummer's pill night and morning; supporting him with mild nourishing food, and keeping him quiet.

Friday, 7th. Little or no alteration; fancied he felt more tingling in his legs; he has had no relief from the bowels; gave him an increased quantity of the Plummer's pill, and ordered a strong colocynth injection to be immediately administered.

Evening. A portion of the enema came away soon after its introduction, and about 10 P.M. he had a small feculent stool involuntarily passed. Upon pinching his lower limbs, he appeared insensible to more than the mere application of the hand to them; the penis frequently became erect during the last day or so, and of this circumstance he felt but slightly sensible; his pulse was natural, rather increased in strength since the first day of my visiting him. He had no headach or pain in the back.

Saturday, 8th.—A watery stool has been passed during the night; has had sleep for five or six hours, and woke refreshed by it. Pulse about 80; not the slightest pain complained of. The *sensitive* power of the lower extremities rather diminished; appetite good; spirits slightly depressed; ordered a continuance of his medicine, and some cal. and coloc. at bed time.

Sunday, 9th, 10 A.M. Has passed a restless night; mind wandering; thirst increased, with hotter skin; tongue rather dry at the point; pulse quieter on my conversing with him. His bowels not having acted, I ordered an injection with ʒiss. compound ext. colocynth, ℥ij. cathartic mixture, &c.

Sep. 18, at 4 P.M. Dr. Back met Mr. Callaway and myself in consultation; the result was, that gr. v. cal. and gr. x. ext. c. c. h. s., with a dose of cathartic mixture, continuing the cascarilla, &c. and mild nourishing diet; the blister to be dressed with simple cerate instead of cerate sabinæ. The bladder being at this time rather distended, the catheter was again introduced, and about a pint of urine drawn off. The bowels have acted since Monday, and a tolerable feculent stool has been procured. Half past 10 P.M. Has had another small stool; pulse quickened; countenance less anxious; pupil contracts readily on application of light; skin moist; no headach; but a sense of uneasiness that makes him satisfied he shall not sleep well; I directed the application of vinegar and water to the forehead; enjoined perfect quietness in the house; emptied his bladder, and desired him to be turned on the left side for the night, the right hip showing a disposition to slough.

Wednesday 12th. No change of importance yesterday; on visiting him at half past one A.M., I found his pulse 120, small and weak; circulation in the extremities but partially kept up; urine dribbling away; continually expressing his conviction that his death would speedily take place. Quarter past 3, Dr. Back, Mr. Callaway, and myself, met in consultation; his pulse extremely weak, 120; answered all questions put to him rationally, although a wildness of expression observable. Bowels not sufficiently open; urine still dribbling away, and collecting in a gut which I had fastened to the penis; he was directed to continue the quinine, to take ext. c. c. gr. v., cal. gr. ii., ext. hyoscy. gr. iv.; 3 tia q. h. ad sedes; mild nourishing diet frequently, and occasionally wine. Quarter past 8 P.M., debility increasing; pulse fluttering, and 164; abdomen getting more tense; urine still dribbling freely, and possessing a very strong ammoniacal smell; bowels not yet open; wildness, restlessness, and incoherency in his appearance and observations. Half past 10 P.M., he had a colocynth clyster, with ℥iss ol. terebinth given him. About ten minutes after, thought he felt as if his bowels were acting; about ℥iss. of feculent matter brought away; pulse 154; hands and arms cold; legs very warm; about ℥vi.

or ℥viij. of water collected in the gut; variable in his mental disturbance, at one time talking rationally for a few minutes, and then wandering from the subject considerably.

Sept. 13. The extremities getting still colder; conversation rational whilst roused, but when left alone wandering; hickup distressing. Ordered ʒss. sp. æth. c.; grs. x. tinct. opii; m. x. liq. a. sub. camph. mixt. syr. rosa. He became gradually weak, and died at half past 10.

The examination of the body was made by Dr. Hodgkin, forty hours after death. The cranium was rather large and capacious. The dura mater offered nothing remarkable. Its vessels were, perhaps, somewhat more than usually turgid with venous blood. The arachnoid was partially opaque, and remarkably firm. Its external surface was perfectly smooth: beneath it there was a considerable quantity of serous effusion. The pia mater exhibited considerable venous turgescence: supported by the firmness of the arachnoid, it very readily separated in large flakes from the surface of the brain, being quite free from adhesions. The substance of the brain was of a natural consistence. The *spinal canal* was opened through its whole extent. Near the middle of the spine, there was a good deal of blood external to the dura matral covering of the medulla, it appeared to be something more than the mere effect of gravitation after death. The spinal chord, and its coverings, were removed fortunately very entire, and without the medulla having received any contusion. There was nothing remarkable in its dura matral covering. When this was opened, the pia mater was seen throughout to be considerably injected, and the blood in its vessels was of a dark colour, for the most part a dingy red; but in two spots, of about an inch and a half or two inches in length, the one about opposite to the eighth dorsal vertebra, the other a few inches higher, it was black, accompanied with a slight greenish tinge. These spots were, at the same time, the most vascular. The medulla appeared to receive considerable pressure from its pia matral envelope, occasioning numerous transverse striæ, and producing a singular and somewhat vermiform appearance. Its consistency was throughout softer than is usual, yet very nearly the whole of the cervical portion, as well as the inferior, at and near its bulbous extremity, presented nearly, or quite, its ordinary appearance. Almost the whole of the dorsal portion was much softer; and, at the parts corresponding to the discoloured and blackened spots in the pia mater, the medullary part contained numerous minute dark-coloured ecchymosed points. The most remarkable changes had taken place in the cineritious columns. In those parts of the medulla, which were the nearest to the healthy state, viz. the greater part of the cervical portion, and the lower extremity; the cineritious matter, though but little altered in colour, was *softened*—and, in the latter, nearly broken down. In the before-mentioned parts of the dorsal portion, the change was carried so far, as to have produced the appearance of a cavity, with such an admixture of black matter with the softened substance, as to produce a deep but not uniform grey. Some spots were nearly black. Though this state was most remarkable in those situations in which the pia mater had likewise assumed a blackish colour, yet it extended beyond them, and existed to a greater or less degree throughout the dorsal portion. The consistence of the most softened portions was similar to that of *cream*. The mucous membrane of the bladder was generally of a deep livid colour. It was corrugated; and the rugæ, which were of a lighter colour, being of a dirty yellow, had a harsh and firm feel. The prostate was of a dark colour. The cellular membrane, in the immediate neighbourhood of the bladder, was tender and lacerable, with some puriform sanguinolent effusion at the anterior part.

Mr. Winder observed, that he thought this was an important case, but that mercury was an unfortunate remedy to have resorted to; he considered that the dissection had thrown little light upon its nature, and although he had not seen any cases exactly similar to the present, yet he had seen some which closely approached it, and he thought that calomel was to be regarded as little better than a poison in such cases.

Dr. Johnson had listened carefully to the case, which was well drawn up. He conceived that no man who had attended to its pathology and semeiology, could hesitate to pronounce it a case of *spinitis*, or, in other words, an inflammation of the spinal marrow or its coverings. During the reading of the case, he had mentioned to the gentleman who sat next him, that this was his opinion, and that he was correct in his conjecture had been shown by the dissection. There was the softening of the spinal marrow, which might be regarded as the constant result of inflammatory action; during life, there were all the symptoms which indicated such a state; there was the loss of power in the muscular structure of the bladder; and the loss of motion, with diminished sensibility of the lower extremities, showing the lesion of the spinal marrow just as palpably as if the spine had been fractured by a fall from the house-top. It was ridiculous to suppose, that any bad effect was attributable in the present case to the use of mercury;—that, on the contrary, it was well known that mercury possessed the power of reducing inflammatory action, affecting what part it might. The only remark that he should make on the treatment of the case was, that he should certainly have been inclined to apply a number of leeches to the spine, and also have abstracted blood probably by cupping in the early stages of the complaint, as it appeared evident to him that it had its origin in the spine.

Mr. Iliff said, that he had been induced to adopt the treatment he had mentioned, in consequence of the advantages stated to have been gained by producing ptyalism in a case reported in The Lancet, from St. Thomas's Hospital. That man was admitted for a glandular disease; and after he had been in the hospital about a fortnight, he began to feel a loss of power in his lower extremities, which went on increasing until he was unable to walk from the bed to the closet. There was also a retention of urine in that case; and, according to the report, the only thing which appeared to produce any well marked relief, was the free use of calomel pushed to salivation. As far as regarded the application of leeches, or the use of cupping-glasses, he should abstain, at present, from saying anything about them. As Mr. Callaway had seen several cases of this description, Mr. Iliff hoped that he would be good enough to state what he knew of them.

Mr. Callaway stated, that in consequence of a conversation which he had with Mr. Iliff, respecting a similar case to that which the Society had heard read, he was requested by Mr. Iliff to take charge of it, and he considered that it was a case of paralysis arising from effusion into the spinal sheath; but that he did not consider it as a case of inflammation of the spinal marrow, or its theca. His reasons for thinking so were, that it was not preceded by any injury of the spine, and that the appearance of the patient was more like that of a man suffering from effusion simply, than from inflammatory action. With regard to the application of leeches, he did not think that much good was to be expected from them in such cases as the present, and he was led to adopt this opinion, from the example of a previous case which had fallen under his notice. The patient was a barrister, who had recently returned from the circuit; he had been much fatigued by the journey, and circumstances soon after occurred to induce him to take up his residence in the King's Bench. He complained of an inability to move one foot over the other, and said that he was continually tripping his toe against trifling irregularities upon the floor. He felt a difficulty in voiding his urine, and afterwards gradually lost the power of emptying the rectum. In this state of things, he was requested, for the first time, to see him. He had no pain on pressure being made on the spine, nor were there any symptoms of fever. As this was the first case of the kind he had seen, he requested Sir Astley Cooper to see the gentleman with him, who said that he had only once seen such a case. Sir Astley stated, that he had once visited a gentleman who was paralytic below the umbilicus, in consequence of an injury he had received whilst hunting, which case was very much benefited by mercury. He said, that he considered the gentleman he was then seeing to be labouring under paralysis, from effusion into the theca vertebralis pressing upon the spine; and that as no remedy was so likely to rouse the absorbents as mercury, he recommended two grains of calomel to be taken three times in the day, with calomel and colocynth pills, and a black dose occasionally. After continuing the mercury for four or five weeks, passing the catheter night and morning, and unloading the rectum by clysters, and giving ammonia, cascarilla, and soda as a gentle tonic, he gradually recovered, and is now perfectly well. The recollection of this case induced him to resort to mercury, rather than to abstract any quantity of blood. He regarded the case as of a novel kind, and certainly not one of inflammation of the theca vertebralis, or of the spinal marrow. His experience induced him to conclude, that cases of paralysis of sensation were generally of a chronic kind, but that paralysis of motion was the result of an active disease, arising from effusion of blood, or more violent mechanical injury, and therefore required a more active treatment.

Mr. Ashwell said, that without casting any blame upon the gentlemen who had the management of the case, he thought that blood-letting might have been resorted to with advantage in the commencement, and that experience was decidedly in favour of the use of mercury in cases like these, when judicious blood-letting had been before employed.

Mr. Callaway wished to ask Dr. Johnson what were the symptoms of *spinitis*?

Dr. Johnson said, that it was not exactly fair to catechise him upon the symptoms of an obscure disease; but without digressing from the subject, he thought that the softening of the brain and spinal marrow, as the result of inflammation, was established by innumerable dissections, and therefore he could not agree with Mr. Callaway, that the present was a case of simple effusion. Mr. Callaway had stated, that he knew of no such case on record; but *Ollivier* in his work on the Diseases of the Spinal Marrow, had described many similar cases, where inflammation of the spinal marrow had been followed by paralysis of the parts supplied by the nerves passing out from below the affected part, and in which cases, softening of the structure of the spinal marrow had been found on dissection, as in the present case.

Here the discussion terminated as far as argument is concerned, although a sort of running fight was kept up between Messrs. Proctor, Iliff, Callaway, Ashwell, and Dr. Johnson, for the remainder of the evening.

GUY'S MEDICAL SOCIETY.

Dr. Bright, *President.*

This Society resumed its meetings on Saturday evening last, in the medical theatre of the Hospital, and the attendance of members was unusually numerous. The business of the evening commenced by Dr. Hodgkin reading a very excellent paper on medical education, on which important subject a most animated debate ensued.

Dr. Hodgkin commenced, by alluding to the defective preliminary education of young men previous to their arrival in London, and the sacrifice of valuable time in the five years' apprenticeship required by the Apothecaries' Act. He remarked, that in France it was rendered necessary by a legal enactment, that the medical student should, as a preparatory measure, obtain a degree of arts and sciences. Dr. Hodgkin then went on to the consideration of the course of studies followed in pursuance of the legal enactments of this country, and spoke of the manner in which the student's time was in general spent, or rather misspent. He lamented that the anatomy of the tissues was not sufficiently taught in the courses of anatomical lectures usually given in this metropolis; that descriptive anatomy rather was taught to the student, by which he was enabled to understand the different capital operations, but which knowledge was often unavailable, whilst general anatomy was neglected, although the most important, as upon it rested a knowledge of internal pathology. The admirable mode of clinical instruction adopted in the different continental schools, was next explained in detail; the practice of Rostan at the Salpetrière, in making clinical remarks at the bed side on every case, and thus practically teaching the diagnosis of disease; the faithful registry of each case, with an account of post-mortem appearances, drawn up by the students in turns, and then publicly read, with additional remarks from the teacher, were said by Dr. Hodgkin to be the means employed. The absolute defect of clinical instruction in the hospitals of this country, was then forcibly alluded to in contrast with the continental system.

The discussion commenced principally with Dr. Addison, who solicited a free and unqualified discussion and statement of opinions, however unpalatable to the teachers who were present, he himself being one. The ridiculous and mischievous regulation requiring a five years' apprenticeship, he reprobated in the severest terms, as well as the very limited nature of the studies, and time prescribed by the Worshipful Company of Apothecaries. We know not whether it was the "ore rotundo" method in which Dr. Addison mentioned these worthies, or from what other cause it proceeded, but certain it is, that an universal titter ensued on the mention of their names.

Mr. Hardy, of Walworth, defended the Drug Company from the supposed censures of Dr. Addison. He said, that the improvement which had taken place in the medical profession, was mainly attributable to their exertions; they did not solicit the Act of Parliament giving them power, it was forced upon them. No one else would take up the cause, and of them it might be said as Napoleon said of the crown of France, he found it in a kennel and picked it up.—Napoleon and the Examiners at the Hall!

The discussion now became very general, and particularly in reference to the period of apprenticeship, the necessity for which was contended for by Mr. Key, Dr. Rees, and Mr. Hardy.

Mr. Key maintained a very peculiar argument with respect to the preliminary education of young men; he thought that nothing could possibly be better than the condition of a young man coming to London, in order to pursue his studies, after five years' apprenticeship. The profession, he said, must be learned practically, and it was best to begin at once with the practical part, and not by slow degrees, learning all the principles previously. He instanced a man about to learn a modern language, who, instead of the round-about way of learning the grammar, and proceeding step by step, at once learned the signification of words; and thus also with the artisan set to work with complicated machinery, he did not begin with learning, mathematics, but proceeded at once to the *business* of the machine.

This happy illustration of a *pure* surgical education was replied to by Dr. Birkbeck, who remarked, that whereas the study of a language was an imitative art, the whole practice of medicine or surgery was an inductive science; that it was founded on a knowledge of certain principles, and therefore, unlike to a language, was not to be learned by rote.

Dr. Rees contended, that by educating a boy highly he was rendered unfit for an apothecary; he approved of an apprenticeship, as it inculcated habits of regularity, morality, and "*subserviency*."

Mr. Hardy did not coincide with either Mr. Key or Dr. Rees, as to the preliminary instruction of pupils, believing that a due course of mathematical studies was an admirable preparatory measure; but still he thought it would be found impracticable to do away with the apprenticeships, inasmuch as some one must undertake the subordinate office of dispensing medicines.

Last, but not least, arose Mr. Examiner Johnson, of the Hall, the Secretary of the Society, who declared it to be his opinion, that as the apothecary was destined to be a "mere drudge," to attend to the lower class of the people in general, *his education should be of a limited kind, otherwise he would be "soaring in the clouds," instead of attending to his business!*

Several members expressed their astonishment at the sentiments uttered by Mr. Examiner Johnson, and when the meeting was about to dissolve, at ten o'clock, a Gentleman (whose name we did not learn) said, that he hoped before the Society parted, some explanation would be given by Mr. Johnson, for he should blush—should take shame to himself, at having passed his examinations at the Hall, when one of the Examiners thus openly expressed his opinion, that the apothecary should be an ignorant man.

It was eventually resolved, that the subject should be renewed on the ensuing Saturday, and it was also determined, that it should be an open night; that is to say, free for any person to attend.

The arguments respecting apprenticeships and the preliminary education of medical students, had so fully occupied the time allotted to discussion, that only a very limited portion of the paper was fully debated upon. There appeared to be altogether a *shirking* of the question, for whilst it was pretty generally admitted that medical education was exceedingly ill conducted in this country, no one seemed inclined to lay the axe to the root of the evil—*the absence of an efficient governing body.* Most of the speakers were evidently of opinion, that things must remain as they are; they could not contemplate an absolute and entire remodelling of the profession—a radical extinction of the present system, and the substitution of an improved plan. No, they wished to gloss things over, not to hurt any one's feelings, not to speak disrespectfully of the "powers that be," the grand source of those very ills which they had met to discuss. But if all these things are passed over at the ensuing meeting; if it be lost sight of that an apprenticeship of five years is a trading interdiction on science, that the tests of qualification by the examinations at the Hall and College are the main sources and causes of the British medical youth being so ill educated as compared with the students among our continental neighbours; yet we hope one thing will not be forgotten, namely, the defect of clinical instruction at the London Hospitals, as contrasted with the foreign schools. Dr. Hodgkin has dwelt upon this very fully, and showed that the superiority obtained by the French, and other nations, in pathology, arises out of the circumstances of clinical instruction being so fully and completely given to the students.

As many of the Hospital Lecturers, we have no doubt, will be present at the next meeting, we shall expect to hear some luminous and very satisfactory reasons advanced by them for entirely neglecting clinical instruction, whilst they receive enormous fees for what is termed—"*Hospital practice.*"

ST. THOMAS'S HOSPITAL.

OPERATION OF LITHOTOMY, BY MR. GREEN. —SPECIMEN OF DR. JOHNSON'S "FAITHFUL RECORD OF CASES."

On Friday, Sept. 28th, Mr. Green performed the operation of lithotomy on a boy about fourteen years of age. The patient, a pallid sickly looking youth, had laboured under the distressing symptoms peculiar to calculus in the bladder upwards of twelve months. Mr. Green employed the gorget in this operation; the external incision made with the scalpel was very ample, and no difficulty occurred in passing forward the gorget, but some time elapsed in bringing away the calculus during the collapsed state of the bladder; it proved to be a stone of the mulberry kind, or oxalate of lime; it was of an oval shape, flattened, rather larger than the disc of a shilling, rough, and of a dark brown colour.

The patient, up to the date of this report, October 8th, has in every respect done well; a portion of the urine continues to flow through the wound.

We have, for some time past, felt desirous of adverting to Mr. Green's extraordinary success as a lithotomist, and the present case affords us an opportunity of doing so. The number of cases in which Mr. Green has operated for stone, is *about forty*; this we have on the authority of Mr. Green himself,—the precise number he does not know.

Mr. Green has uniformly employed the gorget called Cline's, and invariably with success—he has not lost *one* patient from the *forty cases.* And whilst we feel much pleasure in communicating a knowledge of Mr. Green's success—we must refer to the inaccurate statement published in Dr. James Johnson's Quarterly. In his last Number but one, it is stated that Mr. Green has operated *in seventy cases with success.* Now Mr. Green, a few weeks since, in the wards of the Hospital, declared this statement to be *untrue*, and that it was published without his knowledge, consent, or approbation. Yet this ridiculous editor, in his last Journal, talks of his "authenticated reports," as "a faithful record of facts," which even the "most hardened sceptic dares not question."

With respect to Mr. Green's success, as stated by himself, it stands, we believe, almost unequalled in this country. Cheselden, if we recollect rightly, lost only two patients out of fifty-two, that he successively operated upon with the knife. Mr. Martineau, of Norwich, said to be one of the most successful operators now living, we believe lost two patients out of eighty-four: this gentleman also used the knife. But Mr. Green's success with the *gorget* is that which we would lay peculiar stress on,—"the dark and dismal operation of the gorget," says Johnson, in one Number, whilst in a succeeding one he tells us Mr. Green has operated *seventy times* with unfailing success. Mr. Hodson, of Lewes, in Sussex, a man of extensive surgical practice and great reputation, we know operated on thirty-four cases, losing but one patient, and this a very old man. Mr. H. used the gorget in these cases, with one exception.

CASE OF STRANGULATED HERNIA, SUCCESSFULLY TREATED BY TOBACCO ENEMAS.

In the following case of strangulated hernia, the tobacco enema was employed as a *dernier resort*, the patient refusing to undergo an operation at a time when it was considered to be imperatively necessary. The use of tobacco clysters in cases of strangulated hernia, we may observe, is now, at these schools almost entirely abandoned.

E. Fulcher, a stout young man, came to the Hospital on the evening of the 27th of September, labouring under scrotal hernia of the left side. The account which he gave was, that whilst in the act of lifting a very heavy weight, a few hours previous to admission, he felt something give way, and a tumour was immediately formed in the scrotum. He had been the subject of scrotal hernia on this side when about eight years of age, but subsequently to that period it had never descended, although there was always a certain degree of swelling at the upper part of the scrotum: he had never worn a truss.

When admitted into the Hospital, he was found to have a large scrotal hernia, the tumour being tense and tender, and the integuments inflamed at the lower part. The abdomen was tender on pressure; there was partial hiccup, with an anxious countenance; the pulse small and wiry. The dresser, Mr. Eaton, placed the patient in a warm bath, bled him, and employed the taxis for some time, but without benefit, and at length it was deemed necessary to send for Mr. Travers, who, after having attempted for a short time to reduce the swelling, proposed an operation to the patient. However, the man could not be brought to give his consent, and therefore it was determined to have recourse to the exhibition of a tobacco enema. A drachm of tobacco was infused in a pint of water, and half of this was thrown up the rectum, but failing to produce any very obvious effect on the system, the remaining half was injected. In a short time, the peculiar influence of the tobacco was manifest by the nausea, tendency to syncope, and coldness of the skin; and the taxis now being used, the tumour became materially lessened, although not altogether reduced.

Taking into consideration the patient's account, that he had had constantly from his childhood a hernial swelling, but which had been greatly increased on the occasion of violent exertion, whilst it had now equally lessened, it was clearly enough to be inferred that the man laboured under irreducible hernia in the first instance, and that a second portion of gut, or omentum, descended, which became strangulated. Under these circumstances it was deemed advisable to wait. Mr. Travers directed some purgative medicine to be given, and a frigorific mixture, inclosed in a bladder, to be applied to the part. On the following morning we found that the bowels had been relieved twice, although but scantily; the nausea and hiccup had ceased, and the countenance was rid of anxiety. The swelling continued of the same size, tender to the touch, and the integuments inflamed; the swelling was continuous from the abdominal ring down the scrotum; at the ring it was hard, whilst the scrotum was distended, generally having an elastic feel. In the afternoon a free action was set up in the bowels, and the patient in consequence was very obviously relieved. The man remained in the Hospital for several days, and the swelling gradually became less inflamed, but not dimished in size.

ST. BARTHOLOMEW'S HOSPITAL.

FUNGOUS GROWTH FROM THE ANTRUM.

E. B., æt. 20, six months prior to his admission into the Hospital, was attacked with a slight catarrh. He took some aperient medicines, and, in the course of a week, the common catarrhal symptoms ceased. A day or two previous to this, he experienced a slight uneasiness in the right side of his face. At the time it excited but little attention, the pain being but trivial, and regarded as the effects of the cold, which, in truth, it was. However, there was no remission. The pain gradually and perceptibly augmented, and, in the course of a week, the aching of the cheek was so intense, as to alarm both the patient and his friends. All that a knowledge of domestic medicine could devise, failed in procuring any alleviation of suffering. At this period a medical man was called in. There was no tumefaction of the cheek—no *outward* or *visible* sign of inflammatory action. What then could have been the nature of the disease—to what were his sufferings referrible? Were they *nervous*? Was it tic douloureux? No, surely not. *Nervous* diseases suffer a remission—they attack by paroxysms. What was it then? Inflammation, *common* or *specific*. If inflammation, where seated? All who have the slightest knowledge of anatomy, from the locality of the pain, and other attending circumstances, *must* have referred it to the superior maxillary sinus. Then, as to the *character* of the inflammation, that could have been inferred from the previous history. It was consecutive to slight inflammatory action, originating in the mucous membrane of the throat and fauces, the lining membrane of the antrum becoming involved, from continuity of surface. Admitting the correctness of these premises, what ought to have been the indications of cure? Obviously, first, to have extracted a couple of the molares teeth, putting a small trephine through their sockets to have perforated the cavity of the antrum, in order to give vent to any secretion that might take place into it. To have bled the patient both locally and generally—in short, to have adopted a strict antiphlogistic treatment; and the probability is, that by the employment of such means, the disease would have been cut short in its progress, and would not have degenerated into anything malignant.

When the patient came to the Hospital, the inner wall of the antrum had become absorbed, and the fungus extended into the right inferior nostril; it soon became on a level with the alveolar processes, greatly diminishing the cavity of the mouth, thereby seriously impeding deglutition, and he experienced considerable difficulty in swallowing even liquid aliment. The parotid, submaxillary, and sublingual glands, were enlarged. There was a swelling (slightly painful) just above the external angular process of the frontal bone, on either side. Complained of great pain in the course of the temporal nerves, on the right side. The fungus was not so painful as it had been. It frequently bled—seldom, however, to more than a table spoonful at a time. The outer wall of the antrum was entire, apparently hard and compact. Externally, the configuration of the cheek-bone, on that side, was as natural as the other. Mr. Earle cast at the poor fellow a forlorn glance. He told the anxious and inquiring pupils that it was a hopeless case, and, accordingly, prescribed a hopeless remedy. We give it:—

℞ *Vacci lactis. coct. amp. pro re nata*!!
℞ *Opii tincturæ* m. xx. ad ʒss. *singulis noctibus.*

This comprised the whole of the surgeon's treatment. On it being intimated to the friends of the patient, five days after his admission, that nothing further would be done, they removed him from the Hospital!

ROYAL INFIRMARY, EDINBURGH.

"PULSATING TUMOUR" ON THE FRONT OF THE NECK.

There is, at present, in the female operation-ward of the Infirmary, a case of this kind, which has excited an extraordinary degree of interest, in consequence of its dubitable nature; and of which I think it necessary to transmit a description, without awaiting, as in ordinary instances, the result of the practice, or of the disease.

Janet Lumsdun, aged fifty-five, was admitted on the 27th of September, with a tumour occupying the whole anterior surface of the neck, from between the sterno-mastoid muscles of each side, to the superior edge of the thyroid cartilage above, and to the first bone of the sternum below. This tumour, which, on a superficial view, would appear one continuous swelling, is distinguishable by the touch into three separate portions, the smallest of which is placed below the left submaxillary gland, and is soft, elastic, fluctuating, and moveable; but when pressed beyond the sphere of the carotids, it seems to be deprived of the character of fluctuation. The second portion, rather larger than the other, and lying over the thyroid gland, is also elastic, fluctuating, and communicates to the fingers a distinct sense of pulsation. The third and largest of these tumours, extending obliquely from the middle of the sterno-mastoid muscle of the left side, to within a small distance of the right sterno-clavicular articulation, and from the cricoid cartilage above, to within about an inch of the sternum below, is, like the other two, elastic, and appears to be dilated and moved by the heart's action. On the centre of this last division of the tumour, and on its most prominent and lowest part, there is a small ulcer covered by a dark-coloured inorganic mass, resembling a clot of coagulated blood. From between the edges of this mass, and of the ulcer, slight hæmorrhages frequently occur, which may be considerably increased by pressure on the surrounding parts; but the blood which escapes is obviously venous, and oozes from the ulcer in small quantities, without any of the signs of an arterial origin. The internal carotid, and radial arteries of the left side, seem to pulsate less vigorously than on the right; the space above the clavicle is unusually distended; a few glands on the anterior edge of the sterno-mastoid are enlarged; the integuments of the whole tumour are of a natural colour, and the entire swelling, at a first view, bears a strong resemblance to bronchocele, as that disease appears in these countries.

The affection described, is said by the patient to have commenced eleven years ago: while employed shearing, and in the act of raising some grass in her arms, she felt as if something cracked in the neck; and in six weeks after, she perceived a small hard swelling in the situation occupied by the upper portion of the present tumour, which, at that time, she positively affirms was entirely removed by the use of a liniment. In three weeks after, however, this swelling reappeared, and continued to enlarge slowly, without any inconvenience, up to the last two years, when it produced some difficulty of breathing and deglutition. Within the last four months it rapidly increased in magnitude, having made more progress in that time, than during the entire eleven preceding years. A fortnight before the date of her admission, a slough, without any signs of previous inflammation, formed where the ulcer described is situated, and was followed by a discharge of blood unmixed with any purulent matter, and which continues to flow at intervals, as has been stated, ever since. The formation of the slough, and the manner in which the blood has escaped, resemble, according to her account of the circumstances, the process by which an aneurism by anastomosis opens and bleeds. Palliative treatment alone has been adopted; on admission, ice was applied, and constant pressure made by the hand of an assistant for a considerable time, which has now been discontinued for compression by adhesive straps. Little alteration has taken place in the appearance of the tumour, from her reception into the hospital up to this day, (Friday,) when it has considerably enlarged, as if by inflammation, and is attended by much difficulty of breathing and swallowing, for which leeches and ice have been ordered.

On this singular case, forwarded to town as one of carotid aneurism, there have been two consultations, and a clinical lecture by Dr. Cullen. Besides the surgeons of the house, Dr. Cullen took the advice of Mr. Liston, Lizars, &c., who attended at one of these consultations, in which it was decided that the tumour was not aneurismatic, and totally irremediable by art. In his clinical lecture, Dr. Cullen communicated to the pupils, with the utmost candour, the views entertained of the nature of the disease in the consultation, summed up the probabilities of its not being an aneurism, but a "pulsating cellular tumour," of which the patient must die by repeated hæmorrhage, it being impossible to extirpate it from its situation and connexions. He next declared his readiness to take up the carotid artery, had the consultation concluded that the disease was aneurism; then showed, on the dead subject, the manner in which he would have proceeded in the operation, and liberally eulogised Mr. Wardrop, for reviving the practice of tying arteries beyond their aneurisms, a proposition first made and carried into execution by Desault, from whose works Dr. Cullen translated a case confirmatory of that opinion. In noticing, in this very imperfect manner, Dr. Cullen's clinical lecture on this occasion, it is but justice to that gentleman to state, that the writer has rarely witnessed a discourse evincing a more extensive knowledge of the subject treated, more select language for an extemporaneous address, or more ease, elegance, and simplicity of delivery; and that he has been in the habit of lecturing to the pupils on such cases of pathological anatomy as have occurred in the house since his appointment, and of demonstrating on the dead subject when practicable, such operations as he has had to perform in the course of his practice—a novel, and certainly commendable, innovation in the internal economy of the surgical department of the Royal Infirmary, and which, it is to be hoped, Dr. Cullen will continue, unscared by the looks of jealous surprise of his contemporary mutes, Drs. Hunter and Ballingall.

Edinburgh, Oct. 6, 1827.

TO CORRESPONDENTS.

Several valuable communications will be inserted at an early period.

We fear that two or three letters, which should have received *private* answers, have been accidentally destroyed.

THE LANCET.

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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Standard Pelvis.

The standard pelvis, Gentlemen, as I observed to you yesterday, is divided by accoucheurs into two regions, the one lying below, the other above, the brim; the former being denominated the false pelvis, the latter the true. As the true pelvis, or that part of it which is lying below the brim, is of very great importance in the practice of midwifery, with a view to a necessary examination of it, it has been obstetrically distinguished into three parts, the *brim*, the *outlet*, and the *intermediate cavity*. The superior aperture of the pelvis, into which the child descends, is denominated the brim; the inferior aperture, at which the child comes forth into the world, is called the outlet; and the space between the two has received the name of cavity of the pelvis. If you examine a large collection of pelves, you will probably soon discover that there are no two brims that are formed exactly alike; there are some which are larger and some which are smaller; some which are more round, some which are more oval; but in general you will find that the brim tends to an oval form; the long measure of which is lying from side to side, and the short measure, or diameter, from before backward, the regularity of the oval being broken behind by the projection already mentioned (of great importance,) I mean the promontory of the sacrum. The measure of these diameters, the larger and shorter, is found in different pelves to vary. An average may be four inches for the short diameter, five inches for the long diameter, reaching from side to side, and five and one-eighth or five and one-fourth for the oblique diameter, which is stretching in a well-formed pelvis from the back of the acetabulum to the *sacro-iliac synchondrosis*. These few points are the principal niceties in the anatomy of the brim. They are all very easily borne in mind, and all of more or less importance in your practice. The brim varies in its make; being in some round, in others more oval; in some small, in others large; but in general when the pelvis is standard, it is of an elliptical form, the regularity of the oval being broken by the promontory of the sacrum. Of this oval the long measure is from side to side, the short from before backward; the average width between the sacrum and the pubis about four inches; the average dimension from side to side about five inches; the oblique, or that which is stretching between the acetabula and the *sacro-iliac synchondrosis*, about five and one-eighth, or five and one-fourth.

When a labour begins in an ordinary way, the vertex of the child presenting, that is, lying over the centre of the pelvis, we find, in the commencement of the process, that the face is lying to one side of the pelvis and the *occiput* to the other side, and thus, the long length of the head and the long length of the oval brim of the pelvis corresponding mutually, the head very readily descends. Sometimes, indeed, it happens, that the head of the child is placed in a labour with the face not laterally but in front, and then the long length of the head is opposed to the short length of the superior aperture, or brim, and consequently if the pelvis be small and the fœtus large, it cannot be transmitted. I have myself, unfortunately, been compelled to open the head of a child because it lay in this way; and even where there is a large pelvis and a small head, it passes with difficulty in this position.

It sometimes happens that children are coming away feet first, under what may be called the crural presentation, nor is this delivery on the whole uncommon. Now when a child descends in this manner, if the softer parts are very relaxed, the pelvis very capacious, or the child not very large, it descends easily enough; and whether you are acquainted with the make of the pelvis or not, probably you will find little difficulty in accomplishing the delivery. But it sometimes also happens, that a pelvis is very small, or a child is very large, and then a great deal of care may be necessary to get the fœtus away, more especially where you are abstracting the head. Now I have said the long measure of the brim is from side to side, and the short measure from before backward; therefore, the face ought to lie on the side of the pelvis, that the long and short measure of the head and brim may correspond. If I do not attend to this, in dragging the head downwards with the face over the pubis in the manner I now show you, I may go on pulling until I separate the head from the body, and then I have an unfortunate case,—and this is midwifery with some people, a sort of obstetric dray horses. They pull straight forward and without considering, come what may, and marvel when accidents occur. Now in this case the whole difficulty arises not from misfortune, but mismanagement, either from my not knowing what is the form of the brim of the pelvis, or, what is the same thing, knowing it and not acting on my knowledge; for I tell you again what I told you yesterday, that it is necessary, not only to be acquainted with the principles of midwifery, but to carry this knowledge to the bed side of the patient, and to make it operate there in your practice, for there is a living and dead knowledge in the healing art, as there is a living and dead faith in religion. Now, then, instead of pulling violently in this case, if I only turn the face of the child to the one side of the pelvis, so as to make the long length of the head to correspond with the long length of the pelvis, the head, as you here see, passes with the greatest facility; it is therefore by adroitness and dexterity, and not by main strength, the difficulty is to be overcome—*arte, non vi.* But to proceed:—It sometimes is necessary to carry your hand up into the pelvis, an operation never to be done if it can by possibility be avoided. Remember that carrying your hand into the *uterus* you may bruise, you may tear, you may kill; but still occasionally you are compelled, by inexorable necessity, reluctantly to do that which is always dangerous, particularly if you have a large hand and boisterous disposition.—More especially you may have to perform this operation for the purpose of turning the child, by drawing the feet down over the brim of the pelvis. Now even in performing this simple operation, you may avail yourselves of the knowledge of those anatomical properties of the brim which we have just been contemplating, for if you wish to enter easily into the cavity of the uterus, when near the brim of the pelvis, you ought to lay your hand in the side of the aperture, because there we find most room. These points may seem to be of little importance, but what I stated to you yesterday may be here repeated; it is an operative knowledge of those little circumstances which makes all the difference between a dexterous and an embarrassed operator, in other words, between one who is fit to practise the manual part of midwifery and one who is not. So much then respecting the brim of the pelvis, of oval form, the long length from side to side, the short length from before backward, the regularity of the oval broken by the promontory of the sacrum, points of anatomy of great importance in the practice of our art.

Inferior Aperture.—When I take the bony pelvis, and make my observation on its outlet or inferior aperture, which I purpose next to consider, I find that this aperture is of a very irregular form, consisting of three large scallops, one upon either side, and one in front of vast obstetric interest, known under the name of the *arch of the pubis*; but if I take a pelvis, with which the ligaments are still in connexion, I then find that this aperture of nameless irregularity, assumes a more familiar shape, tending somewhat towards a quadrangular figure, as you here see. Now this is the form of the aperture in the living woman, with the bones of which the sacro sciatic ligaments and various softer parts are connected. When I examine again this quadrangular or square aperture, I find, that like the brim of the pelvis, it has its two measures, the one from side to side, which may average about four inches, though varying, and the other stretching from the arch of the pubis to the front of the os coccygis, which may, though it likewise varies, average about four inches also. It seems, therefore, in this stage of our observations, that there are two striking differences between the inferior and superior apertures of the pelvis; the superior being oval, the inferior more square; the two measures of the inferior being of equal length (four inches,) whilst the measures of the superior are unequal. But I must now remark, that the os coccygis before described, is made up of two or three pieces of bone, the pieces being connected to each other by cartilage, so that it acquires a certain degree of flexibility; and, moreover, that this bone, is put into connexion with the sacrum, by the sacro coccygeal joint, which allows a retreat of one inch. In consequence of the retreat of the coccygis and the flexibility of the bones, we find that the outlet behind admits, under pressure, of being elongated about an inch; so that when the coccygis is thrown out, as in difficult labours it will be, there are, in fact, two diameters, the one lying about five inches from before backward, the other about four inches, and stretching between the sides. Here, however, be it observed, there is this important obstetric difference between the brim and outlet, at the brim the long measure is from side to side, and the short from before backward, whereas at the outlet, the long measure is from before backward, and the short from side to side; accordingly we find in ordinary labour, when entering the superior aperture, the child's head comes into the pelvis, with the face to the one side, and the occiput to the other, but that at the outlet before it emerges, its position changing, the face gets into the *hollow* of the sacrum, and the occiput under the arch of the pubis, the *sagittal* suture resting on the *perineum*, a part not yet described. In this way the long length of the head corresponds with the long length of the outlet, and so the child passes more easily into the world.

If you are bringing the child's head from the pelvis under a foot presentation, this nicety of anatomy, which I have been mentioning, must not be forgotten. Should you pull down the child, the face lying to the one side of the pelvis and the occiput to the other, if the head be small, and the pelvis large, the fœtus will come away notwithstanding; but if the pelvis is small and the head large, the face and the occiput lying in the way I have supposed, you may go on pulling till you separate the body from the head. Dr. Lowther, once requested to attend in a case of great difficulty, as it was represented, found on making his examination that the head was nearly severed from the body; a piece of information which a midwife, his predecessor, seemed loth to communicate, imagining, perhaps, that he would complete the operation she had begun, and take the whole credit of it to himself. (Laughter.) On further investigation, he observed also, that the head was lying at the outlet of the pelvis, with the face towards the one side, and the occiput towards the other, the long measure of the head lying against the short measure of outlet. Directed, therefore, by those oracular whispers, the whispers of common sense, he cautiously put the face of the child into the hollow of the sacrum, and without further difficulty, to the great surprise of the parties, the head was abstracted. Thus it may happen in a foot case, if you have a large head and a small pelvis, and forget to put the head into the proper situation, you may do the woman a great injury, and actually pull the head of the child from the body, while, by knowing and acting on this small point of anatomy, the whole difficulty may be surmounted, or rather set aside.

But to proceed: we are obliged sometimes to carry the hand into the pelvis for other purposes, or in order to turn the child. Now an operative knowledge of the flexibility of the coccyx, may be of advantage even in performing this simple operation. If the hand in entering the pelvis bear too much anteriorly, or to the one or other side, it cannot be easily introduced; but bearing it backward on the perineum and the yielding coccyx, care being taken not to lacerate or strain the parts, we may often introduce it with comparative facility. A hint, which must not be forgotten in your practice. And thus much respecting the outlet of the pelvis, so far as it is interesting to the accoucheur. Though somewhat quadrangular in its form, it has, like the brim, a long and short diameter; but there is this important difference between the two, at the brim the long axis lies from side to side, at the outlet from before backward, so that the two measures are placed at right angles with each other.

Cavity of the Pelvis.—In the cavity of the pelvis, one of the first points of obsteteric anatomy deserving our attention, is the *incurvation* of the *sacrum*, and consequent formation of that *hollow of the sacrum* so often mentioned by the accoucheur. In some women the sacrum is straighter, and there the hollow becomes smaller; in others it is much more incurvated, and there you will find the hollow greater, as may be conspicuously seen in the specimens I now exhibit. This hollow is, in the practice of midwifery, interesting, for it makes more room for the child's head, or breach, or whatever part may be descending. When the vertex presents, the face lies there; when the face, the occiput lies there; nay, even in breech presentations, you will find that the delivery is facilitated by the lodgment of a part of the buttock in the cavity of the sacrum.—Of this knowledge, we may avail ourselves in practice, when you are assisting in a foot case; for example, when the head is in the cavity, you might throw the face forward and the occiput backward, thereby occasioning difficulty; for the parts, as you may see, do not fit well together; the rule, therefore, is to place the face and forehead backward, and the occiput in front. Suppose a child is coming away vertex first, and that you are obliged, though unwillingly, to have recourse to the forceps; on abstracting by this instrument, you might throw the occiput forward, and the face backward; but as the face does not fit well under this position, availing yourselves of the benefit of your anatomical knowledge, you may throw the face backward, and the occiput forward, when the head will readily come forth. When we examine the cavity of the pelvis further, we find it is of a very *unequal depth*; and this is also a little point of anatomy, not of much consequence certainly, but yet not to be forgotten. In front it is shallow, not above an inch and a half in depth; behind it is deeper, about four times as deep as in front; laterally, the depth is intermediate; so that if you examine the pelvis all round, you find its depth various; shallow in front, deeper behind, intermediate laterally; and therefore it is, in an ordinary labour, that when a child's head has got down into the pelvis, although behind and laterally it be still incarcerated among the bones, so that much difficulty may be experienced in completing its expulsion; yet, in front, it lies bare and open to the finger. And this I mention, because those who are commencing the practice of midwifery, sometimes imagine, upon feeling the head in the front of the pelvis, that the fœtus is just upon the point of emerging, whereas it may be embarrassed by the bones enclosing it laterally and posteriorly, and parturition may be protracted for hours. The shallowness of the pelvis in front is not to be forgotten, when you are making examinations; if you wish to examine well, and I hope every gentleman instructed in this school will examine dexterously, for I look upon this operation as of the first importance to an accomplished accoucheur. If you wish to examine well, you must learn to carry your fingers very far into the pelvis, and this cannot be done if you lay them on the sides or back where the pelvis is deeper, it is only in front of the pelvis where the bones are shallower, that the tips of the fingers can be insinuated considerably beyond the brim. Here again I may observe to you, that it is an attention to these minute circumstances, which makes the difference between a clumsy and a dexterous operator; in other words, between one who is qualified to undertake the manual part of midwifery, and one who is not.

Arch of the Pubis.—There is yet a third point of obstetric anatomy here which I must notice, and that is the large scallop in front, frequently mentioned by the accoucheur under the name of the arch of the pubis. This arch is obviously important; because, in ordinary labour, when the head is at the outlet of the pelvis, this arch facilitates the passage, by allowing the occiput to lie forth in front as I here demonstrate, and thus making more room within. Or, again, suppose the child presents by the face; that is, that the face comes away as the first part; as the labour advances, the chin gets out under the arch of the pubis; and the vertex, lying in the hollow of the sacrum, there is room afforded here in front to facilitate the delivery. It is, at the point of the arch of the pubis, that you will always find the *orifice* of the *urethra*, when you want to introduce the *catheter*. The readiest mode of doing this, is to place the woman on her left side, and putting your finger on the point of the arch of the pubis, you will easily ascertain the orifice; but of this hereafter. The standard arch is of large span, wider in some women, more contracted in others; where contracted, some little difficulty may arise, as the chin or occiput cannot lie forth as far as ordinary. Here is a specimen of a very contracted arch, and here is another specimen of a very capacious one. Observe the effect producing by either on the passage of the head.

Incurvation of the Pelvis.—There is one other property of the cavity of the pelvis, which I must notice, I have reserved for the last, although I look upon it as the most important of all—that is, the incurvation of it; for, instead of the tube or tunnel which it forms being straight, it is curved in the same manner as if (being formed of some yielding material, such as tempered wax, for instance) its front were placed on my bent knee, and the upper and under parts of it were drawn towards my body, in the way I now demonstrate. In consequence of the pelvis being thus incurvated, a straight line will not pass through the *axis*, or, in other words, through the *centre* of this cavity; it must be a curved line of course, as the pelvis itself is curved, a point which I will endeavour to illustrate: here is a pelvis, from which I remove the lateral half, with a view of showing you the cavity and its incurvation, and here you will see that, upon placing a straight line (this wire) in the axis of the upper half, the straight line will not keep the axis throughout the cavity below; it is in the centre above, but it is not so below. And conversely you may observe, that if it be placed on the axis of the lower half of the pelvis, it gets completely away from the centre of the cavity above—therefore, in order to keep the axis throughout the cavity, the line must be incurvated, the convexity lying towards the sacrum, and the concavity towards the pubis. And observe, the curve of the axis corresponds pretty exactly with the curve of the sacrum; the two, as this demonstration shows, being nearly, if not wholly, parallel with each other. Now, on this account, and this is the great practical observation to be made upon it, as the cavity of the pelvis is curved in the manner demonstrated, the course of its axis or central line at the brim lies downward and backward, so that a straight line will pass downward through the axis of the upper portion of the pelvis to the point of the sacrum or the parts lying near it; and further, in consequence of this curve, as the course of the central line at the outlet is downward and forward as before demonstrated, a straight line placed in the axis of the inferior half of the pelvis, will, at its upper extremity, bear upon the promontory of the sacrum. How very important, and very easy, it is to recollect this, namely, that the axis of the brim passes downward and backward, and that the axis of the outlet passes downward and forward. In ordinary labours, the head follows the axis of the brim in the commencement when traversing the brim, passing downward and backward as here demonstrated, and, in the same way, passing downward and forward when it emerges through the outlet. If you have a foot case, and there chance to be a large head and a small pelvis, you will find the knowledge of the axis to be of no small importance. If, in abstracting the head, I were to draw downward and forward through the brim, instead of bearing downwards and backwards towards the point of the sacrum, pulling the head against the symphysis pubis as you here see, I might draw till I drew the child's head from its body, without getting it away. To bring the head through the brim, I must draw a line leading from the centre of the superior aperture to the point of the sacrum, when, as you may here observe, it will be transmitted with comparative facility. I have myself known a child's head torn from its trunk, from the practitioner not being aware of this. The same thing is not to be forgotten when the head is at the outlet, though attention to these niceties is of minor importance, as the difficulties are smaller. When you get the head to the outlet, you ought to draw downward and forward, (the axis of the outlet lying in this direction,) when the head will pass readily enough; by neglecting this, you may create a difficulty which it is easy to avoid. Even in bringing the fœtal body through the pelvis, the course of the axis must not be forgotten, and this more especially if the pelvis be contracted, and the body form a larger mass than ordinary.

Well, then, for I will not weary you with further illustrations, remember that the cavity of the pelvis is not straight, but incurvated; that the curve corresponds with the bending of the sacrum; that the incurvation is such, that at the brim the course of the axis is downward and backward toward the lower extremity of the sacrum; that at the outlet its course is downward and forward, so that a straight line passed upwards would impinge against the promontory of the sacrum, and that by a sort of semicircular movement it is, that the head and other parts are transmitted.

Distorted Pelvis.—It is happily not often that we are meeting with *distortions* and *contractions* of the pelvis in the *higher degrees*, yet now and then those cases do occur, and when they occur give rise to most formidable difficulties and dangers, the notice of which is well deserving our closest attention. When a pelvis thus becomes distorted in consequence of *fracture, rickets*, or above all, which is the most frequent cause, from the *mollities osseum*, or softening of the bones, we find in general that all parts of it are more or less altered in shape; the false and the true pelvis, the brim, the cavity, the outlet—are all incurvated and distorted together, as in the specimens exhibited; yet it does sometimes happen, where there is a good deal of distortion and contraction of the pelvis, that these are confined principally to certain parts of the pelvis only, a fact of some little importance to us in practice. Here, for example, is a pelvis which, if compared with a standard, seems much distorted at the brim, yet if you examine it at the outlet you will find that it deviates there but little from the natural form and capacity. Where there are distortions of the pelvis too you will not unfrequently find, upon examining specimens in this museum, that one side of the pelvis is much more contracted and distorted than the other.

Now, should you meet with cases of distorted pelvis, (and in practising in large towns, such as Liverpool, Manchester, Leeds, Glasgow, and this Metropolis, cases of this kind will occasionally occur,) you must carefully examine with your fingers what part of the pelvis is the most contracted, and what part the most roomy, in order that you may direct your operations accordingly. These distortions of the pelvis occurring, of course there is no end to the different varieties of forms that the bones may assume; nevertheless I have observed, on making an examination of my specimens, that there are *two* leading shapes, or forms, to which these varieties may be reduced, and which may not inaptly be denominated the *angular* and the *ellipscidal.*

At the brim we sometimes meet with elliptical distortions (I here show you specimens,) produced by the approximation of the promontory of the sacrum towards the symphysis pubis, the length of the brim becoming increased somewhat between the sides, and between the front and back abbreviated. At the outlet also (as this pelvis proves) the ellipsoid contraction may occur, the symphysis pubis being approximated to the lower extremity of the sacrum and the coccyx, so as to obstruct or to render impracticable the passage of the fœtus, even after its bulk has been reduced by the perforator.

The second variety of distortion, or the angular, is produced at the brim in consequence of the acetabula and the promontory of the sacrum being all of them pushed inward upon the axis of the pelvis. Of this kind of distortion I here exhibit a very striking example, and I once possessed a cast, which some rude hand demolished, in which the acetabula and promontory were so nearly approximated, that the brim was, as it were, divided into three fissures, two laterally and one in front. At the outlet also the angular distortion occurs, and here it is occasioned by the approach of the tuberosities of the ischia and the incurvation of advance of the sacrum and coccyx, as this distorted pelvis shows, and gives rise, as at the brim, to a formidable contraction of the passage.

Well, what is to be done with women unhappily labouring under these distortions and contractions, whether of the elliptical or angular kind? What assistance can you afford them in their deplorable situation? If such a female is unfortunately pregnant, and in the end of her gestation, there are but two modes in which the delivery can be accomplished; the one is by *laying open* the child and reducing its bulk, the other is by performing the *Cæsarian operation*, in other words, by making an opening through the abdominal covering and uterus, by introducing the hand at the apertures and extracting the child by the operation of turning, as it is called. If the fœtus is to be abstracted in these cases by the natural passage, the head must be perforated, the contents must be removed, nay, sometimes the thorax and abdomen itself must be laid open, and when in this manner the bulk of the fœtus is reduced, and the parts are softened by putrefaction, it may at length be got away. Under circumstances of this kind then, it becomes a question whether you should perform the Cæsarean operation or the operation of *embryotomy*. Dr. Hall, of Manchester, and Mr. Burns, who has written so well on midwifery, have ascertained, that when the standard head is reduced, in the best possible way, to the smallest size, by the most expert operator, it will require, for its transmission, an aperture of three inches in its length, and in its breadth one inch and three-quarters; therefore if you find, upon examining, that no part of the pelvis is so capacious as this, it follows that the Cæsarian operation must be performed, and perforation is unjustifiable. After all, however, the mere capacity of the aperture will not enable us to decide, for not to mention the difficulty of ascertaining it with precision, much must depend on the skill of the operator, and one man may fail altogether in his attempt to deliver, when another may bring away the child with comparative facility. On the whole, perhaps, the rule may with advantage be laid down as follows:—If the passage of the pelvis be three inches throughout in length, and one inch and three-quarters throughout in breadth, and if the operator possess the necessary skill, then let him bring away the child by the operation of embryotomy; if, on the contrary, the capacity of the passages be not equal to that I have stated, and if the operator be wanting in dexterity, and unable to call in some person who may be more expert than himself, the Cæsarian operation must be performed.

A robust country woman, in vigorous health, the mother of several children, was thrown out of a cart, which went over her, and broke her pelvis to pieces. She was carried home and lay a long time, but at last recovered. She again became with child, and was attended by a woman, but the pelvis was so contracted by the displacement of the fractured bones, and the mass of osseous matter by which they were consolidated, that the midwife was unable to deliver her. Mr. Barlow, of Blackburn, who used to relate the case, was called in, and found that she could not be delivered without the performance of the Cæsarean operation. As soon as she was willing to submit to it, feeling there was no hope in any other way, he performed it, and the child was extracted, but it was dead, (probably before the operation its vitality was become extinct,) but the mother herself did very well; in a fortnight after the incisions were made she got up, and in three weeks she was attending to her usual concerns. Now I mention this case as a rare instance of the success of the Cæsarian operation, for in general that operation, as performed at present, proves fatal. I mention it also as an instance of the operation being required, in consequence of the fracture of the pelvis, and a high contraction of it produced by this cause.

But I put another case, which ought to be duly weighed before you engage in practice, as the life of some unfortunate woman may depend on your previous consideration of it. I will suppose a woman has a high contraction, and is in the early months of gestation; I will suppose she may not have gone above one or two months: now in this case, of course it would, if practicable, be desirable to introduce an instrument into the uterine cavity, so as to *discharge* the *liquor amnii*, and in that way bring on a *premature delivery*; but very probably you might not be able to enter the uterus, nay, you might not be dexterous or fortunate enough even to feel the os uteri; now under these circumstances another operation, and an operation which I would strongly recommend to your attention, might be attempted. Make an opening a little above the symphysis pubis, in or near the *linea alba*, carefully avoiding the bladder; at this opening introduce one of your fingers, say the fore finger of the left hand, so as to get a bearing on the uterus; this accomplished, take some slender pointed instrument, and pretty stiff, and by a sort of acupuncture, carry this instrument through the body of the uterus into its cavity, and on entering the uterine cavity, move the wire cautiously, yet effectually, in different directions, so as to break the ovum all to pieces, and put an effectual stop to the generative process. The ovum destroyed, draw up the *fallopian tube*, which is easily done, first on the one side, then on the other, cutting out a portion of it, so as to render it impervious, by which the woman would for ever afterwards become sterile. By this operation, successfully performed, you would at once secure the woman against the Cæsarean incisions, and preclude the risk of her ever becoming pregnant again. I shall hereafter lay before you some experiments I have made, which first led me to think of this expedient, and which induce me to believe, that unless the fluid discharged from the ovaries above may come into contact with the *seminal fluid* derived from below, a *new ovum* cannot be produced. Now this contact, the imperviousness of the tubes will effectually prevent impregnation .In performing the operation, I should be very careful to *break up the ovum thoroughly*, even if I laboured for fifteen or twenty minutes together.

But what is to be done in those cases, where a woman is known to have this contraction of pelvis, and though married, is yet unimpregnated? *Abstain.* But women have not always the power of abstaining, and unluckily they become pregnant. My friend Dr. Hall knew a woman who, having this sort of pelvis, was informed of it, and who, after abstaining some five or six years, in an evil hour, I know not how it was, (laughter,) became ultimately impregnated. In the early months of pregnancy, an operation to occasion the expulsion of the ovum was very properly attempted, but failed. In the course of two or three months after, labour supervened, but too late; the fœtus was too bulky, the parts became contused, and she died. Then what is to be done in the case of a woman so circumstanced and unimpregnated? If she distrust herself, I should recommend an operation, not, perhaps, wholly without difficulty and danger, but so far preferable to the Cæsarean incision, that I should not hesitate to advise it. I would make the small opening which I described before, not for the purpose of taking away the ovaries altogether, for that would unwoman her, but to take away part of the fallopian tubes; and this I should more especially recommend, if a woman laboured under a contraction of the pelvis from fracture, and if her general health were good.

LECTURES
ON THE
INTELLECTUAL COMPOSITION OF MAN

Delivered at the London Medical Society by

DR. HASLAM.

LECTURE II.

On Language, considered as the Instrument of Thought; and on Numbers, as the Standard of Precision, and the Basis of Reason.

THE state of the infant has been sufficiently considered in the former discourse. The gradual acquirements of perception and passive memory, have been noted; together with that degree of volition that serves to adapt the sensitive organs to their separate objects, and to direct the movements of the bodily frame. If man had been limited to these possessions, he would, like animals, have been stationary. If perception be nugatory without its associate, memory; what is the fleeting and perishable adjunct of human recollection, without a contrivance to preserve it? The wonderful instrument by which man becomes progressive, and acquires a superiority over all animated beings, was purposely concealed in the last lecture, in order to render its importance more conspicuous in the present, and thereby demonstrate his intellectual composition. This admirable engine for the rapid advancement of the human intellect, is speech, a convention between certain parts, the structure of which has been described with sufficient accuracy and minuteness; but the manner in which they cooperate to produce those sounds that are significant, has been hitherto but imperfectly considered. These parts have been termed the organs of voice; and the significant sounds they propel, are addressed to the ear. Therefore, speech is to be interpreted as a subsisting convention between the vocal organs and the sense of hearing. There are many sources of information that we constantly employ, and which contribute essentially to our comfort and convenience, without being acquainted with the means by which they act: thus most persons possess instruments to ascertain the temperature of the atmosphere, its gravity, and existing moisture, and likewise, to indicate the hour, without any knowledge of their mechanism: in the same manner they acquire language, and by habit employ it, without ever adverting to its nature and construction. Although a subject of the highest intierest, the organic part of speech has been inadequately considered: it is indeed a subject of great complexity, but it is the legitimate province of the anatomical proficient and physiologist to investigate, in order to solve the difficulties of this intricate question. It is sufficient for the present purpose, to know that the lungs are the grand reservoir of air or breath, that the larynx and parts connected with it produce the adequate dilatation and compression, and that, by the parts composing the mouth, the volume of air is so modulated, as to produce the intended sound: therefore, there are certain vocal sounds that are denominated labial, nasal, dental, palatick, guttural, &c. according to the presumed instrumentality of these parts to their formation. The proof that speech is conventional between the vocal organs and the ear, arises from the fact, that those who are born with their ears impervious to sound, are dumb; by not possessing the means of acquiring spoken language, in the direct and ordinary manner; and which appears to be a triple process. 1st. The perception of the object by the sensitive organ; 2d. The comprehension, that the sound or word is the substitute for the object perceived; and, 3dly, The imitation of the sound for its practical employment. In an endeavour to ascertain the manner in which our perceptions are remembered, it was observed at our last meeting, that the organ of vision, was endowed with superior sources of memory, by being enabled voluntarily to revive the phantasm of the object seen: indeed, when the object, and the name by which it is distinguished, are familiar, the mention or recollection of the name, will excite the phantasm: and the recurrence of the object in nature, or by the phantasms that take place in our reveries and dreams, or in delirium, will recall the name. Something similar, but in a minor degree, takes place with the perceptions of the ear: but as each of our sensitive organs conveys intelligence in a different manner, no analogy can be established: that which the ear receives, can only be directly communicated by the voice; and the articulations of the vocal organs can only be addressed to the ear. In the other senses, no phantasms are excited in a sound state of the organs; their memory is passive, that is, they require the objects to be presented again, in order to claim them as former acquaintances; and, which is most important, their recollection can only become an act of the will, by substituting a name, as the representative of the perception. From the time that the object in its absence, can be recalled by a name, generally understood, the rapid progress of the intellect commences: and it will now be evident, to how great an extent the memory must be improved, and its facilities augmented, by the substitution of language for our perceptions. It would be superfluous to trace the gradual advancements, by which the child attains the rudiments of speech; they may be readily observed, but the description would be tedious. It is sufficient to remark, that the kindred spirits of curiosity and imitation, which are early developed, produce hourly additions to the vocabulary, and improve the pronunciation: and the vigour that speech imparts to the memory, may be illustrated by the fact, that none of the occurrences of infancy, however signal or impressive, are remembered; and, that the earliest recollections are of circumstances that have happened, after the child has acquired some proficiency in language.

It is generally agreed, that no animal, under any circumstances or manner of tuition, is capable of acquiring speech for the purposes of communication. This investigation is in some degree connected with the organic doctrine of articulate sounds, and likewise demonstrates the nobler capacities of the human species. Some of the feathered tribe, will pronounce many words, and even sentences, in a manner perfectly intelligible; and it is worthy of remark, that such are not, in general, the birds of song. It therefore appears, that the physical structure of the vocal organs, by which words are pronounced, is not peculiar to man; and the anatomist will of course, by some congruity of apparatus, give sufficient reasons for this successful imitation of the human voice: but it has never been seriously asserted, that these birds comprehended the meaning of the words they uttered. This circumstance, namely, the ready comprehension that the vocal sound or word is the representative of the perception, constitutes the broad and palpable distinction between man and animals. We may allow, that some of the quadrupeds, in their domesticated state, may be impressed with the meaning of a few words of command, that have been frequently repeated; but these animals have never attempted to imitate the sound: and those birds that can readily pronounce several words in succession, or sentences, have neither understood the aggregate, nor the individual words, of which the sentence is composed; and both of which are indispensable for the comprehension of speech. The intelligence of the quadruped is vastly superior to the capacities of the feathered creation, and the only conclusion that can be drawn is, that the former wants the power of imitation, and that the latter is incapable of understanding the meaning of that which it utters; and therefore, that neither is competent to the acquirement of speech. The fact is however, interesting, as it evinces that the mimicry of intelligent sound, is a talent altogether different from that comprehension of meaning, by which man describes his perceptions, and promulgates his thoughts.

We shall now abandon the brute to its mute docilities, and vocal insignificance, and proceed to a more intimate examination of the instrument of human progression. Children acquire speech by residence and the ordinary intercourse with persons of whatever nation, and become capable of fluent conversation, without being taught the principles of the language: and in this uneducated state, many of our species pass from the cradle to the grave; their phraseology, and the construction of their sentences, are in conformity to the models from which they have derived their diction: and this is an additional proof, when the substitution of the name for the object is comprehended, that the acquirement of speech is the mere act of imitation. Let us grant, that speech has been correctly learned; to what does it amount? What is the extent of the convenience it affords, and of the intelligence it conveys? It is the medium of reciprocal communication, which the pantomimic exhibition of gesture could not impress. Of the present, it imparts all that immediate suggestion can detail:—of the past, it can recite the series of events, within the bounded sphere of its own recollection, and wanting a superior promise, it might impotently speculate on the probabilities of the future. Speech can express the individual facts of perception, and the generalities that abound in nature: it bestows the ornamental graces on conversation, and calls forth those glowing metaphors in which poetry is arrayed, and which render the orator attractive; together with all the abstractions that are the coinage of a fertile imagination. The utterance of significant sound is able to impart our immediate feelings, whether we supplicate a higher intelligence, or bestow the eloquent tributes to friendship and affection: its subtleties are admirably calculated to evade the truth, and equally fitted for the unblushing avowal of falsehood; to propagate slander, and in its subdued tone, to circulate the whispers of detraction. These vocal representatives of thought and emotion, may be bandied from mouth to ear, while the man survives: but at his departure, all the effusions of his genius, the maxims of his wisdom, the hoard of his experience, and the reflections of his mind, perish. By mere speech, man is circumscribed into the creature of his own day: the intellectual treasures, which his ancestors may have possessed, are buried and decomposed, and his own accumulations have no inheritor. In this state, limited to oral communication, and destitute of a character, by which human events and opinions are recorded, there are, even at this period, many populous communities in existence. For immediate intelligence and personal communication speech is sufficient: but, for the advancement of our species, for the conveyance of thought beyond the perceptive influence of the ear, and to transmit our achievements to posterity, an additional agent must be employed; and this consists, in some permanent character, that equally registers the sound of the word, and preserves its meaning. The composition of this record from alphabetic characters is evident, and constitutes the foundation of our literary instruction. In this process, significant sound, which had been exclusively addressed to the ear, now becomes the joint property of the organ of vision. By the arrangement of these component symbols into words, and by their selected multiplication into sentences, the eye imbibes the same material that the ear absorbed: but according to the different manner of conveyance, which each sensitive organ enjoys, speech necessarily implies intonation, and written character is silently transmitted. But this silent reception of intelligence, so coalesces with the functions of the ear and voice, that the subaudition is reciprocal; so that, by the simple visible perception of these characters of significant sounds, the voice can proclaim them aloud and the ear become its evidence. The rapidity with which these separate communications are executed, to unlettered persons, is perfectly astonishing; yet they are regularly successive. The eye must perceive the word, and its appropriate sound must be recollected, before it can be uttered by the voice, and be intelligibly directed to the ear. To render the acquirement of language complete, and adapted to fulfil its purposes, there still remains a desideratum, which is the ready formation of these alphabetic characters, termed hand-writing: and although many persons have learned, by the eye, to comprehend and pronounce, printed or written words, yet they remain deficient of the skill, and directing movements, by which they are executed. This performance involves the sense of touch, with its conjoined facilities of adaptation and prehension, together with the co-operation and immediate guidance of the eye. The multitude of human affairs that press on those actively employed, necessarily produces an abbreviation of language, both of its sounds and characters, for convenience and dispatch: for it must be recollected, that the perfection of a language, consists in the perspicuous conveyance of our thoughts, by the shortest means: and as we penetrate further into this subject, we shall be aware that the construction of a clear, and definite sentence, is one of the highest efforts and proudest attainments of the human intellect. Before we can advance in any department of learning or science, it is absolutely necessary that the significance of the terms we employ, should be individually comprehended, in order that they may be conjoined for the purpose of expressing our thoughts.—This is the philosophy of language; and respecting our own, there is sufficient evidence, from its structure and composition, and from the materials we possess of its early foundations and progressive history, to conclude that it was of a rude and barbarous origin. But time, the purer construction of the ancient tongues which have served as the models of improvement, and the endeavour by translation to transfer the spirit of the originals into our native language; have considerably promoted its present state of comparative perfection. For purposes that will be developed hereafter, it is proper to notice that all the particles, whether prefixed or postponed, together with the inflections of certain parts of speech, are abbreviations of actual words for convenience and dispatch. There can be nothing fortuitous in language; its structure is the type and emblem of the intellectual culture of the people who employ it: and it therefore becomes an infallible criterion of the state of the human mind, and of the progress of civilisation. The abbreviation that is most generally employed, and is of the greatest utility, is the art of shorthand, which still admits of considerable improvements, and ought to be considered as a branch of education: for, until the hand can keep pace with the speaker, and readily reconvert these abbreviations into speech, or the ordinary character of writing, the art is defective. Finally it has been projected, by some literati, to construct what they have termed a real character, or philosophical language: and as far as their meaning and object can be detected, which is extremely difficult, it is a proposal to contrive some general representative of thought, in which the wise men of all nations might communicate and correspond; but after many infructuous efforts, the scheme was abandoned. If my own opinions on the nature of thought be correct, such contrivance is an utter impossibility: and had they thoroughly comprehended the nature of language, they never would have made the attempt.

In the investigation of the intellectual composition of man, that has been already instituted, his perceptions and associated memory have been noted; together with that degree of volition, that contributes to their more perfect exercise: language has likewise been furnished, whereby he can commute his perceptions for significant sound, and voluntarily produce them, to describe the phenomena of nature, the peculiarity of his opinions, and the impressions of his feeling. He has been taught the alphabetic elements and their arrangement in order to unravel the records that preserve the transactions, and embalm the wisdom of his ancestors; and to complete the purposes of language, he has acquired the dexterous formation of these symbols, in order to transmit the elaborations of his thought to his remote contemporaries, and to a distant posterity. Thus his name lives when his corporeal structure is decomposed, and blended with the earth he inhabited. Independently of the illustrious monuments of invention, of taste and of wisdom, that we derive from the polished nations of antiquity; there are names, the produce of our native soil, that will never perish while valour, genius and virtue, are held in estimation.

By these powerful instruments of communication and record, man can inherit the intellectual treasures of preceding ages, and bequeath to future generations the enduring legacy of his own accumulation.—These high possessions are beyond the comprehension and attainment of animals; and it is now the proper moment to communicate that such incapacities have rendered them stationary. Under the immediate direction of human sagacity, their docilities may be augmented, and by judicious breeding, the bodily proportions of their race may be improved. But that which they have been forced to acquire, they never attempt to teach; it is exhibited only by coercion, and never spontaneously practised: and left to their own guidance, their corporeal ameliorations soon degenerate. When the abundant materials, (even from the sources already enumerated,) that compose the human mind, are duly contemplated, we shall cease to wonder at the long period that elapses before man arrives at the maturity of his intellect; such are the elaborate composition and superior destinies of his nature. Even with the attributes that have been recorded, the foundations of his mind are still defective. These acquirements, in their utmost perfection, could only render man the creature of abstract description and eloquent generalities; admirably competent to embody fiction and adorn fact; fitted to become the splendid orator, and to breathe forth the inspirations of the poet. In the full enjoyment of these excellences, he would still want some standard by which he could institute accurate comparisons; some equal balance to indicate the preponderance, and some unerring test to determine the proportions of matter. For time and space he would require some precise admeasurements, and for all property some definite estimates of value:—these can only be obtained by the knowledge of numbers, by which all computations are effected, and into which all estimates, ratios, and proportions are ultimately resolved.

On Numbers.

The civilised community in which we exist, has provided for all the exigences of our nature, physical, intellectual, and moral. We are propelled into a world ready furnished, supplied with all the conveniences of human requisition, and therefore become more the beings of enjoyment than of investigation. In a state of luxurious repletion, we seldom inquire how the dainties have been procured. These observations especially apply to the doctrine of numbers: we are impelled forward to surmount the difficulties they can solve, but are little disposed to revert to the history of their invention, or to analyse the nature of their composition. The comprehensive generalities of language describe immense armies—a prodigious population—the cloud-capt mountains—and the profound abyss of the ocean: but these swelling attributes convey no precise estimate, or definite calculation. It is therefore necessary to employ some criterion which can accurately define the assembled individuals, and the elevation and depth from a certain position. When we inquire into the origin of numbers, we are involved in considerable perplexity: the genuine history of this contrivance is altogether wanting, and enveloped in fables not worthy of being repeated, yet it is evident that they must have been consecutively noted; that is, they must have commenced with unity, and have proceeded in a series from one to ten. It is equally curious, that in the polished nations of antiquity all integral numeration concluded at ten, and that eleven is a term compounded of the words denoting one and ten. Our northern ancestors have denominated eleven one left, that is, one remaining after ten have been counted. If we seek the extent of numeration among some less civilized tribes, we shall find that it terminated at five, and that six is compounded of the words five and one, and proceeds to ten by the same manner of composition. In our own language, the names that denote the units do not admit of any similar explanation by any ostensible etymology, nor can we trace the origin of their names to any probable sources. In the Mæso-gothic, the venerable parent of the northern dialects, the verbal sign after ten is indicative of the numeral composition; that is, the word by which it is designated, is a compound of the words composing the two numbers combined,—and our own language follows the natural order of such composition. Thus we have twain-ten, or twenty, proceeding to a hundred, which means ten rows of ten each until we arrive at a thousand, the import of which is two five hundreds. These illustrations, which may appear recondite and perhaps superfluous, have been adduced to show, that although the history of numbers is imperfect, yet the means by which the intellect arrived at numerical progression, is clear and satisfactory. If it be inquired what is the extent of the operations of number, the answer is definite and certain. However complicated the rules of arithmetic, however disguised its abbreviations by algebra, the power of numbers can only consist in additions to existing numbers, or in substractions from them. These two operations are all that are within the reach of the human mind. Numbers, or figures their representatives, are applied, as the accurate criteria of quantity, time, space, and value, and these can only exist in the excess or diminution of some definite standard. It is wholly unnecessary for the present purpose, to treat more largely on the philosophy of numbers: but it will be expedient to exhibit their utility and application to the ordinary purposes of life; and to prove, that without their conjunction with language, man could not become a member of a civilized community, he would be an imperfect constituent of a pastoral nation: he could not blend with an agricultural state, and he would be wholly incapacitated for all commercial relations: but above all, however voluble his speech, however select and expressive his phraseology, he could transact no business, nor ever attain the dignity of a man of science. For the purposes of definite estimate, numbers are necessarily connected with all the objects and movements in nature, and these alone constitute the standards of precision. Such is the unvarying accuracy, yet pliant adaptation of numbers, that they can determinately characterise all the forms of estimate, and be affixed to all the perceptions we derive from our sensitive organs. The divisions of time that have been established, enable us to denote the present, and to admeasure the past for ages that have lapsed, which constitutes chronology, by annexing to events the precision of a date. In the examination of space, whether we compute the surface of the globe we inhabit, or the distance between given positions; whether we ascertain the elevation of mountains, or fathom the depths of the ocean; the definite result must be conveyed by numbers. Even the instruments we employ, as the standards of correctness, have their sources and determination in numbers. That prominent feature in the human character, the lust of possession, has converted to value not merely the surface of the earth, but also its interior recesses. Property comprises all the products of the animal, vegetable, and mineral kingdoms. Even the birds of rapid flight and delicious flavour, are claimed by the proprietor of the district through which they pass, and the wilder quadrupeds are equally the subjects of appropriation: these are moderate assumptions. But man himself becomes the object of a bargain:—he is driven to the market, like an ox unto the slaughter;—his fine proportions are eulogised by the appraiser, his prowess is displayed, and his abject submission warranted to enhance his price. Even sex claims no exemption from this iniquitous traffic, and the offspring becomes the slave of the purchaser. Such is the cupidity of man, that were his power unlimited, he would have monopolised the host of heaven,—and sold a planet by private contract, or knocked it down to the highest bidder. The representatives of value are the multiplications or subdivisions of a standard, and although they vary in different countries, are all ultimately resolvable into numbers. The operation of numbers may be correctly considered either as an abstract science, or as connected with the useful purposes of our nature. The addition or substraction of figures may constitute a simple and independent process, or they may be conjoined to the forms of matter, to space, to time, or to value. Thus the accurate chemistry of our own day is expressed in numbers, and in their fractional divisions. The admeasurements of the existing temperature of the atmosphere, together with its gravity and prevailing moisture, can only be indicated by a scale numerically constructed. The specific weight of solids, fluids, and even of gaseous substances, can only be characterised by number. The preparation of medicinal compositions, and their distribution into certain doses, and also the particular times when they are to be administered, imply the numerical divisions both of weight and of time. It would be useless to enumerate further instances of the indispensable application of numbers:—their utility becomes evident on the slightest consideration, although their immense power and higher employments have been unnoticed. They are the immediate instruments of all ratios and computations, and constitute the ground work of the whole range of natural philosophy, and, on a future occasion, will be exhibited as the basis of reason. Furnished with these intellectual components, man is prepared to compete with his fellows, and to assume his rank among intelligent beings. He has now acquired the elements, from which his mind may proceed to the display of reason, and to the elaboration of thought. He is now sufficiently instructed to survey the world in which he exists, and to comprehend the acts of its inhabitants, in order to determine on the objects of his ulterior pursuits: for the rudiments he has attained, equally qualify him for accurate observation, and for the higher energies of reflection. Having become familiar with the exercise of speech, and with the construction of his native tongue, he is more readily enabled to extend his researches for the possession of others; and thus to imbibe, from their immediate sources, the eloquence and wisdom of the Grecian and the Roman models. On these solid foundations he may erect the edifice of learning; and by the patient devotion of his mind to the standards of excellence, he may surmount the difficulties of composition, and convey his opinions in perspicuous and connected sentences. He may seek advancement in the departments of the law,—or, directed by more solemn views, he may reluctantly aspire to the preferments of the church:—and if his industry be equivalent to his talent, he may be distinguished as an honourable and skilful member of our own vocation;—a profession whose basis consists in the union of learning and of science;—and whose superstructure is experience expanded by reason, and condensed by thought.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE,

Delivered at the Royal Institution of Great Britain.

Lecture I.

We are assembled, here, Gentlemen, for the purpose of commencing a course of lectures on Chemistry, and I shall endeavour to state to you the objects of the science in general terms, and to give you an account of the order of study which will be adopted.

I need scarcely state to you that the term chemistry was employed by the old chemists to denote the science of the transmutation of the metals, and the conversion of the various metallic bases into gold; and the alchymists, as they were called, who pursued these experiments, had another object in view, namely, the discovery of an universal remedy. With regard to the first of these objects, the transmutation of the metals, it is not surprising that they should conceive such a thing possible, especially when you reflect on the separation of the metals from their ores, and that from many of these, very unpromising bodies in appearance, some of the most valuable metals are obtained, as is the case with iron, which they succeeded in reducing from what in appearance are mere stony ores, and it seems to me that considering that they had transmuted these bodies into iron, there was some plausibility in the notion that they should be able to convert some of the less precious into the more precious metals. You may also find a similar explanation for the other object of the alchymists, namely, the discovery of a panacea, or an universel remedy; for, finding that the metals possessed very energetic powers in the cure of certain diseases, they imagined that, having done thus much, they might do more, and discover an universal remedy.

It is to the labours of these persons, who flourished in the middle or dark ages, that chemistry is indebted for many valuable discoveries; they discovered a great number of the metals, many of the acids, many of the salts, and spirits of wine, which were not known at any previous period, and therefore the origin of chemistry is undoubtedly with the alchymists. But if you choose to trace the history of the science to a more remote period, you will find, in holy writ, mention made of the fusion of different metals from their ores, and so on, which implies a degree of chemical knowledge; but the rationale of the process was then unknown. It was not, however, until a very late period, comparatively speaking, that chemistry began to assume the form in which we now find it, and to acquire a truly scientific aspect. There were, it is true, many chemical facts distributed over a number of works, but the science appeared to proceed rather as a matter of choice than of experimental inquiry. At the beginning of the last century, however, the facts discovered by the alchymists, were gradually examined and classed, and re-examined upon scientific principles. Stahl and Beecher distinguished themselves in Germany, and in this country Drs. Hales, Hooke, and Mayow, rendered many valuable services to the science. Then if we take a step to the middle of the last century, to the period between 1750 and 1760, we find that a number of persons, whose names are very familiar to you, Priestly, Lavoisier, Cavendish, Scheele and Black, studied chemistry upon very scientific principles, and added exceedingly to the number of its discoveries. They did more, however, than this, because they showed that chemistry was capable of very numerous and valuable applications to the arts, and they made such applications of it with great success. Soon after the period last mentioned, Lavoisier explained a great number of chemical facts, unknown before his time, and classed them together, so as to form a system of chemistry, the first of the kind, which was published in France, in the year 1777. Dr. Priestley, about the same time, made a number of very valuable acquisitions to the science, by the discovery of a number of gaseous or aeriform bodies; for although it was known before his time, that there were two or three different kinds of air, yet they were only regarded as atmospheric air, loaded with certain vapours. He pointed out their distinct nature, and you will find that the gaseous or pneumatic chemistry, as it was called, contributed a number of important facts to the science. Matters remained pretty much in this state, until the science received a new and very important stimulus in the early part of the present century, by the discovery of what has been called Galvanism; or I ought rather to say, by the discovery of the relations of electricity to chemical changes. The discovery originated with Volta, was improved upon by Galvani, and has been pursued by several experimenters in this country, but especially by Sir Humphrey Davy, to whose brilliant investigations on this subject, chemistry is mainly indebted for the great and rapid progress which it has made in the last twenty-five years.

It is not easy to give a very unobjectionable definition of chemistry. Dr. Black defined chemistry to be "a science which taught us the results of heat and mixture upon bodies;" and, certainly, to examine into the changes produced upon bodies, by heat and mixture, may be stated to be a main object of chemical investigation; but I should be inclined to make an addition to this definition, and to say, that chemistry is the science which teaches us to examine and inquire into the composition of bodies generally, whether effected by heat and mixture, or any other means; to inquire into the changes resulting from the mixture of bodies, and into the causes of these changes. Accordingly, the chemist is enabled to divide all bodies in this way, into two great classes, namely, into *simple* and into *compound* bodies; and in examining the various products of nature, infinite as they appear to be, we shall find that in the present state of our knowledge, there are not more than about fifty or sixty elementary or simple bodies, and that by the union of these, the immense and diversified masses of matter upon the surface of the earth are formed. The term element must not be confounded with what the ancients called the elements, which you know were, according to them, air, water, earth and fire, from which they supposed all other substances were formed; nor the additions which the alchymists made to those of salt, sulphur, and mercury; but we understand by the term, a number of essentially elementary bodies, the further decomposition of which has baffled our analytical skill. But, as you will by and by find, we often see certain qualities in these bodies which lead us to suspect that they are of a compound nature, and some chemists have gone so far as to consider their suspicions almost proof, and have called even the metals compound bodies from analogy. I shall, however, show you the necessity of adhering to matter of fact, and not to assume any thing which has not been proved by experiment. Chemistry being purely a science of experiment, it is impossible by deduction or mathematical inquiry, to arrive at the knowledge of a chemical fact. At the same time it is right to say, that the barriers between the several sciences are giving way; and that chemistry is almost imperceptibly merging into mechanical philosophy.

When you look at the number of objects presented to you by nature and art, and when you reflect that they are all of them matters of chemical inquiry, you will be somewhat appalled at their number, and consider that the difficulty of arranging them is almost infinite. Arrangement and order will do a great deal in cases of this kind; and I shall now proceed to show you the arrangement we shall adopt here; not that I mean to say it is devoid of fallacy, but I consider it the best a teacher of chemistry can adopt. In the first place it is obvious that the chemist has to inquire into the powers which effect chemical changes. We have before us a number of simple or elementary bodies constantly assuming new forms, and we have to examine into the causes of these changes; we shall find them in the great powers or properties of matter of which we know nothing as to their cause, and these are *attraction*, *heat*, and *electricity*; and it will be necessary to examine these powers generally as chemical agents, and afterwards their mode of action upon individual bodies.

Now with regard to *attraction*, it is customary to divide it into *homogeneous* and *heterogeneous*, or into mechanical and chemical attraction. By the first term is generally understood that attraction which causes the particles of a body to adhere to each other; and the same power which influences the particles influences the mass, and gives to bodies the power of what is called *gravitation*, preserving the planetary bodies in their proper movements and causing bodies projected from the earth to be attracted again towards its centre. Attraction operating on similar particles, causes adhesion of these particles; and when acting upon dissimilar particles, produces chemical change. Here, for example, is a piece of white marble: if I throw it into the air, it is attracted toward the centre of the earth by gravitation, and its particles are held together by the same power, then called the attraction of cohesion; but if I examine its composition minutely, I shall find that it is composed of carbonic acid and lime, and these are kept together by what is called chemical attraction or affinity, which will be described more at length in the next lecture. Sometimes this attraction takes place without producing any regular form in the shape of the body, at others, the most beautiful regularity may be observed; and in crystallisations you have examples of this. Now it is the business of the chemist to study these forms, and to investigate, as far as he can, the causes of these forms, because they assist him in arriving at a knowledge of the nature of their compositions. In examining into chemical affinity, we shall make you acquainted with the general terms usually employed, and with some of the common results of this species of attraction; but here we shall only give you a general outline of the subject, because the whole course will consist of an explanation of the causes and nature of chemical change, the result of chemical affinity, or attraction. Having thus examined attraction as causing chemical change, we shall proceed to examine how far it is influenced by *heat*, we shall endeavour to show that heat gives to bodies a repulsive energy and enables them to overcome the attraction of cohesion, and give examples of its power of converting solids in aeriform bodies. Our inquiries into the phenomena of heat will be first general, and then particular; we shall examine its general effects in nature, and during the course shall trace its influence upon bodies more particularly. We then come to *electricity* as a chemical agent; and here the chemist has great difficulty in drawing the line between such phenomena as are strictly chemical, and such as belong to mechanical philosophy, or to other branches of philosophical inquiry. However, we shall endeavour to point out the general phenomena of electricity, and the influence which they exert upon chemical change. It was, as I have stated, at the commencement of the present century that Volta made the capital discovery of the accumulation of electricity, by the contact of metallic substances. Volta hit upon a mode of accumulating the electricity thus produced by the contact of metals, and the instrument thus made has been since called the Voltaic pile, and from the share Galvani had in improving it, the Galvanic battery; and it has been found to be a very useful instrument in prosecuting chemical inquiry. Now then these subjects, namely, attraction, heat and electricity, will, as I have stated to you, be brought before you generally at the opening of the course; and they will constitute the first division of it. We shall then proceed to examine the materials upon which these agents are acting, and the changes which they produce on them.

Now with regard to matter, it may be divided into *two great classes*, the gaseous, highly attenuated and imponderable, to which the term *radiant matter* has been given; and I need only advert to light, to radiant heat, to the different rays of the prismatic spectrum, to furnish you with instances of different kinds of radiant matter concerned in chemical changes and the influence it exerts on them.

Then in regard to *ponderable* bodies, they may be divided into simple and compound; and upon this principle chemists and chemical writers have founded their arrangement of different substances. They have described, first of all, the simple or elementary bodies, and in the next place the compounds resulting from their union; and it was urged that this was the best way of making the student acquainted with them, namely, first to describe the simple, and then the compound bodies. Another arrangement has been made of substances into the supporters of combustion and combustible bodies; but I shall not stop to explain these now, and refer to them merely to show you the classifications which have been proposed. The basis of our arrangement of these substances will be founded upon their *electrical relations*; and taking them to be about fifty-four or sixty in number, you will find that some of them are uniformly attracted by substances rendered positively electrical; and we infer from certain circumstances to be pointed out hereafter, that they are naturally in an opposite state of electricity. There are three simple bodies of the first kind, or supporters of combustion; namely, *oxygen*, which is a simple body in a gaseous form when uncombined; *chlorine*, also a gaseous body under common circumstances, but existing as a liquid at very low temperatures, or under considerable pressure; and *iodine*, existing as a solid body. Now we might show you that oxygen is always permanently gaseous, and chlorine a liquid, and iodine a solid body; and that these three, which are electrio-negative bodies, are always attracted by the positive pole. We might describe the properties of oxygen, then those of chlorine, and then the properties of iodine, but we shall adopt a different plan; for having described the sources and properties of oxygen, which by the way is a very important body, constituting a large portion of the ponderable matter of our globe, about a fifth part of the atmosphere and eight parts in nine of water; having, I say, pointed out its properties, we shall proceed to examine chlorine in the same way, to show you its sources and general properties; and then, instead of passing on to the third body of this class, namely, iodine, we shall examine the compounds which oxygen and chlorine form with each other, and in this way we shall avoid much of the perplexity in which the subject is usually involved. Having given you an account of the compounds of oxygen and chlorine, we shall proceed to an examination of iodine, and exhibit to you the compounds which it forms with oxygen and chlorine. There are, perhaps, two or three other bodies which belong to this class; as for example, fluorine and some others; but as they have never been exhibited in a separate state, we cannot be certain of it, and we infer that they belong to this class, from certain habitudes which they manifest in combination.

Then we come to the consideration of the *electro-positive* bodies, or such as are attracted by the negative pole, and you will find them to be *hydrogen*, which is a gaseous body, the lightest in nature; *nitrogen*, another gaseous body, *sulphur*, and *phosphorus*, solid, inflammable, and easily fusible bodies, and *carbon* and *boron* inflammable, but infusible bodies, or nearly so; and to this class may be added all the metals. I shall not, however, enter upon the consideration of these now, further than to remark, that there exists a great analogy between them, and although each has some properties by which it is distinguished from the others, yet that there are certain properties possessed by them in common, sufficient to constitute a distinct class, and one of these is their attraction by the negative pole of an electrical apparatus. In the next place, we shall examine hydrogen and its combination with oxygen, so as to form water, which becomes an important subject of chemical inquiry, and the discovery of the composition of which may be regarded as one of the most important of modern times. Having done this, we shall proceed to its combinations with chlorine and iodine. Then we shall take up nitrogen in the same way, and its union with oxygen will lead us to inquire into the composition of atmospheric air, its properties, and general characters and latitudes; and so we shall go through the various substances, examining them first in their separate states, and then in their relations to each other. Now with respect to the metals, these will form a very important feature in our inquiries; they are a very numerous class of bodies, and many of them are of extreme importance in the arts, and in medicine especially. The chemical history of the metals includes a number of collateral branches of inquiry, into which we shall enter as far as our time will permit: in the first place we shall point out the state generally in which they are found in the earth in the form of mineral ores; secondly, describe their localities; and, thirdly, the general mechanical properties by which they are distinguished from each other. This constitutes a branch of science called mineralogy. Another collateral subject connected with this, is the mode of extracting metals on a large scale from their ores; the manner in which these are worked, and reduced to the state of purity in which they are brought into the markets. The manner in which ores are reduced upon a large scale, involves many processes, which will be pointed out to you generally, and this branch is called metallurgy, or the extraction of metals from their ores. Many of the metals combine with each other, and many of these combinations have been applied to most useful purposes in the arts; and when speaking of iron, we shall explain to you its combination with carbon, so as to produce steel, and the various purposes to which such compositions are applied.

We shall also have to describe their medical applications, which has been called pharmaceutical chemistry, and part of the science is often spoken of as if it could be studied apart from the rest; but it is only since pharmacy has been studied as a branch of general chemical science, that any true knowledge of it has been acquired. One of the most valuable discoveries, namely, the separation of the active principles of plants, as quinine from bark, morphia from opium, and so on, interesting to the philosophical chemist, and of great importance to the medical practitioner, may be pointed out to you as resulting from chemical investigation; these, however, will be pointed out more fully to you by and by. We might also advert to the treatment of persons poisoned by metallic substances, as illustrating the importance of a knowledge of chemistry. In many cases, our knowledge of the nature of the compounds formed by the union of the metals with different substances, will enable us to discriminate such as are innocent from such as are hurtful, and teach us to prescribe accordingly. With the history of the metals, we shall conclude the history of the elementary bodies, and of their various mutual combinations, as far, at least, as they are independent of organisation; but we have for good reasons set apart those which are the result of life or organisation, as requiring a distinct and particular mode of investigation. We shall have to show you, that in the vegetable world, from the moment a seed begins to grow, it is performing a class of chemical operations upon the air and soil. But the mode of performing these operations is perfectly distinct from any thing that can be artificially represented, because they are under the influence of the vital principle of the plant, and consist in the selection of certain elements from the soil and air for its development and support. It is necessary however for the chemist to inquire into these operations, which end in the production of a variety of vegetable products, as gum, sugar, starch, acids, and alkaline substances, and so on; and a great variety of vegetable products will be examined in detail, not merely regarding the mode of their formation generally, but also in regard to their applications to the arts.

I think necessary to state to you, that the chemistry of the arts will be in all cases entered upon as far as our time will allow; and although the details of the workshop cannot be gone into for want of time, yet we shall in all cases develop all the principles of the arts, and show you some of the manipulations, where they are important, of the artist's shop. Some of these would require an entire course for their elucidation; take, for example, the arts of dying, bleaching, tanning, calico-printing, and so on. We must adhere to the abstract principles of the science, and go into their details as fully as our time will allow; so that when you visit a manufactory, you will not be wholly ignorant of the principles of the processes which you may see then going forward.

Another interesting branch of vegetable chemistry is *fermentation*, or the production of venous and acetous liquors from certain vegetable products. The principle of this change is simple enough; but you will find that the causes of the various flavours of the wine and beer, and other fermented liquors, depend upon trifling circumstances, and are much under the control of the manufacturer, who adopts particular processes sometimes for particular ends. In regard to vegetable, as well as animal bodies, the modes of analysing them will be pointed out, and it may be well to state to you, that there are two modes of analysis resorted to, the one teaches us the nature of their ultimate parts, which we shall find to consist of carbon, hydrogen, and oxygen for the most part, and the mode of determining the relative quantities of these, will be shown; and the other mode of analysis teaches us the quantity of gum, resin, sugar, and so on, in a body, which are called the proximate elements; and in this way we shall arrive at a knowledge of the various vegetable and animal substances, distinguishable from each other by their chemical habitudes. The old chemists had very little idea of the nature of animal substances; they considered that they were composed of various materials, such as air, earthy matter, water, and oils, and so on, which they obtained by distillation; but of late animal chemistry has acquired considerable interest, and has been studied upon more philosophical principles. In examining animal bodies, our first question is, which are their ultimate compounds? We shall find that they are few in number, but that the secondary products to which they give rise, are very numerous: carbon, oxygen, hydrogen, and nitrogen, being the ultimate elements; and proximate elements, albumen, jelly, fat, different acid and alkaline substances, and so on. We shall show you the mode of analysis by which all these may be obtained, the relations of these substances to each other, and the various circumstances under which they are applied in the arts, many of the arts depending, as I may say, upon the chemistry of animal bodies, as, for example, tanning, and so on.

The functions of animals have been examined with great delicacy by different chemists, but unfortunately without any practical results as regards their application. Many of these, however, are still very interesting subjects of inquiry; as, for example, the respiration, and to examine the change which the air produces upon the blood, which properly belongs more to the physiologist than the chemist; but in consequence of the numerous experiments which have been made upon a variety of secreted fluids, we could not pass the subject over entirely. These investigations were commenced some time ago by Hales and Priestley, and have been repeated by Sir H. Davy, Drs. Bostock, Prout, Wollaston, and others of the present day. It was imagined that these investigations on respiration and secretion would have thrown some light upon the nature of diseases; and it was supposed that the analysis of the blood in the healthy and diseased state would point out many important facts for the better treatment of diseases; but, as I have told you, this unfortunately is not the case, for there are so many impediments in the way of an accurate analysis of animal products as to baffle all inquiries of this kind. With the chemical history of animal products we shall conclude the course; and the geological lectures which were formerly given at its close, will be mixed up with the history of the metals instead of considering them apart; because to enter upon geology with success would require more time than we can devote to it. We were obliged to reduce the subject to two lectures, and therefore it was imperfectly discussed, so that we shall in the present course offer you some geological remarks when considering the metals.

We have been frequently asked what part of the course is to be set apart to analytical chemistry. The fact is, that the whole of the course may be considered as a developement of the principles of this art, and the application of these principles will be obvious from the numerous illustrations brought before you. It is quite impossible to describe to the student in a lecture the arts of manipulation; but you will see them performed, and you will have an opportunity of examining the apparatus for effecting the various analytical and other processes. As to analytical tact, that can only be derived from experience; and having made yourselves acquainted with the nature of bodies, you may acquire by practice that tact which belongs to the analytical chemist. These are all the general remarks I have to make on chemistry, and upon the plan of arrangement adopted in this school. There are one or two other subjects to which I wish to call your attention. During the course I may not be heard, or be perfectly understood on some points, from the pupil not being acquainted with the details brought before him; I have therefore to request that the student will apply to have the subject cleared up to him after the lecture. In the next place I have to enjoin punctuality of attendance; we shall be in our place at nine o'clock, and shall not detain you after ten. The necessity of punctuality in pursuing your studies must be so obvious to you, that I am sure I need only mention it to ensure attention to this point.

On Thursday we shall consider *attraction* generally, more especially in influencing the forms of matter.

Lecture II.

Gentlemen,—In the former Lecture, the powers and properties of matter, as connected with chemical changes, were briefly introduced to you under the titles of homogeneous attraction, heterogeneous attraction, or affinity, heat, and electricity. Now, of course, I need only speak very generally of the subject of attraction, because, during the course, you will have a series of illustrations of the effects of attraction upon bodies exhibited to you; so that all I shall do, at present, will be to give a general view of the subject, and to explain some of the terms used in discussing the effects of attraction. As I have before said, we know nothing of the cause of attraction, but that it is a kind of power acting generally upon matter in mass, and upon its ultimate particles. Now, in the former case, it is called *gravitation*, and acts not only at sensible, but also at insensible distances; it controls the heavenly and planetary bodies—and, according to the theory of Newton, were it not for the action of a power called *inertia*, which tends to hold bodies in a state in which they are put, gravitation would cause the heavenly bodies to run together, and form one mass. Gravitation is, therefore, restrained by inertia; whilst that kind of attraction which acts upon the proximate particles of matter, holding them in contact, is called *aggregation*, which power is opposed by heat and electrical agencies. You will observe, then, that the phenomena of nature depend on two great counteracting causes, the one acting in one direction, and the other in another; the result being that harmony of action which nature everywhere presents. When attraction acts upon the proximate particles of matter, it is to be considered as modifying the texture and form of bodies, it gives a spherical figure to fluids, it tends to the adhesion or cohesion of surfaces, and when it acts on dissimilar particles of matter, that is, when it acts upon the ultimate elements properly so called, causing them to combine or unite, it constitutes chemical attraction, or *chemical affinity*.

The term aggregation is applied to all those cases in which solid bodies are formed, and we say that the particles of this silicious earth (showing a piece of flint) are held together by aggregation; we say, moreover, that they are held together by a strong power of aggregation, because the body is very hard; but, on the other hand, if I take a piece of chalk, I find the aggregation of its particles comparatively trifling; its particles are easily separated from each other, and yet I have the same body, chemically speaking, but in different states of aggregation. Here is a piece of marble, and here a piece of calcareous spar, (showing them to the class,) bodies of very different degrees of hardness, the particles being held together by various degrees of aggregation, but being, notwithstanding, of one and the same chemical nature. The term *cohesion* is employed to signify that kind of attraction which is exercised upon the surfaces of bodies. If you bring together two polished surfaces you will find a strong tendency to adhere, and the denser the bodies are, the stronger is the cohesion of the surfaces. Now this cohesion is not dependant on the air between the surfaces, as was formerly supposed, since it will take place in vacuo. You generally observe the result of aggregation in producing masses of indefinite form; large masses of matter cohere together, without any apparent order in their arrangement; but, in other cases, you find that the particles have arranged themselves in a regular order, and that this order is a mathematical arrangement constituting a series of forms usually called crystals—the term applied to certain definite forms, which certain bodies are capable of assuming. One thing must be attended to in examining these bodies; it is pretty evident that, at one time, they must have been in a liquid state, a state in which the particles composing them must have enjoyed great freedom of motion. Now we are capable, by artificial processes, of producing crystals; and, in very many instances we are enabled to exhibit bodies in a crystalline form, which Nature does not present to us in that state. On the other hand, nature produces many crystals which art has not hitherto been able to imitate. In order to obtain a body in a crystalline form, we must first give its particles great freedom of motion, and this is done by a process of solution. Accordingly, if I pour water upon a piece of salt, nitre, for example, I find that the water will gradually act upon, and dissolve a portion of, it—or, in other words, the attraction of the water for the particles of the nitre overcomes their attraction for each other, and a portion therefore of nitre is taken up by the water, and combined with it in a state of solution; but, after a time, the attraction of the particles of nitre for each other counterbalances the attraction of the water for them, and the mixture becomes quiescent; the water will no longer take up any of the nitre, it has no longer any solvent power over it. If you now apply heat, which diminishes the attraction of the particles of nitre for each other, you enable the water to take up another portion of nitre, and when that is done, the solution is said to be saturated. The phenomena of solution appear to depend upon the relative attractions of the water for the particles of the salt, which are counteracted by the attractions of the particles of salt for each other, and this attraction of the particles of a body for each other, often proves a great impediment to chemical action; we are often obliged to powder them, in order to act upon them chemically with greater facility. Having, in this way, acted upon the nitre with cold water, I shall obtain a solution which will remain permanent; the particles of nitre will be diffused at particular distances throughout the water, and will have no tendency to unite into a solid form; but if you diminish the quantity of water, you bring the particles of nitre nearer to each other, and you give them a greater aggregating power, or tendency to unite. If you evaporate the water to a certain extent, and allow the solution to cool without being disturbed, the particles of the nitre then attract each other, and they do this according to regular laws, producing crystals of a certain definite form. Now the regularity of the form of these crystals will depend upon a variety of circumstances, but more especially upon the quiescence of the solution. If the solution be agitated during the process of cooling, the crystals will be very irregular, and of no considerable dimensions, because the agitation will prevent the aggregation of the particles of the salt; but if you take pains with the evaporation, if you suffer the water to escape slowly, keep the whole in a quiescent state, and operate upon large quantities of matter, you will find no difficulty in obtaining crystals in a state of great perfection. (Various specimens of crystallised bodies were shown.) To show you the influence of motion on the fluid during crystallisation, I may adduce the ordinary appearance of sulphate of magnesia, as it is used in pharmacy; you know that the crystals have a fine silky appearance, and it would be very difficult to determine their form; but if you allow the crystallisation of the salt to go on slowly without being disturbed, you may obtain large crystals, and you will find that each crystal is a four-sided prism, terminated by two dihedral summits; and if you obtain a perfect crystal, you will find that the axes of these two summits are opposed to each other. It may perhaps appear curious to you to describe the shape of a crystal, but you will find that such information is very valuable in determining the composition of very many bodies. Now here are crystals of nitre of different sizes, depending upon the degree of attention bestowed in their preparation; and here you see a gigantic crystal has been obtained; and here you have a most perfect specimen of crystallisation, a six-sided prism, with a dihedral summit. In preparing a solution for crystallisation, it is necessary to evaporate it down to a certain point, before crystals will form in it; and when you have arrived at this point, you will find that numerous particles of the salt begin to collect upon the surface of the fluid, and form a sort of layer of salt, which is called a *pellicle*; only indicating that a certain number of the particles of the salt have overcome the attraction of the water, and now begin to unite to each other, a sure indication that you will have a crop of crystals when the liquid cools. There are some substances that you cannot dissolve—as, for example, the metals in their pure state, but then you can melt them; and if you pour out the interior of a melted mass of metal, the interior of the cavity will present a crop of crystals; in this way we can obtain crystals which we do not find in nature; but there are many metals found crystallised in their native state, that we cannot procure at all by art. There is another way in which we often succeed in procuring crystals, which is, in order to give their particles the greatest freedom of motion, they may be converted into a state of vapour; and you have a familiar illustration of this mode of crystallisation in the falling of snow, which presents a regular aggregation of the particles of water previously in a state of vapour. The crystallisation of camphor on the sides of the vessels in which it is kept, is another case of this kind.

When substances have been crystallised in water, they generally retain a great quantity of water as one of their elements, and this has been called the water of crystallisation, and that frequently in a very large quantity. The crystals of the sulphate of soda, for example, contain only 72 parts of the dry sulphate of soda, and 90 of water, making 162, which is the equivalent number of the crystallised salt; and there is one fact worthy of notice, that in the crystals of any one body, there is always the same quantity of water entering into its composition. You observe, therefore, that when you obtain 162 parts by weight of the crystals of sulphate of soda, you have only 72 parts of the dry salt, the remaining 90 parts being water, which will always be found in the same quantity in the same salt. Now, when we wish to export salts, or to place them in as small a space as possible, we avail ourselves of the knowledge of this fact, and drive off the water of crystallisation, well knowing that we can recrystallise the salt whenever we please, by again dissolving it in water. Some substances lose this water of crystallisation very rapidly, on exposure to air, the salt becomes opaque upon its surface, and pulverulent; and such salts are said to *effloresce*: others, again, absorb moisture from the atmosphere, and become liquid; such salts are said to be *deliquescent*; some, again, as nitre, undergo no change on exposure to air, and such are called *permanent* salts.

You will find in crystallising salts contained in aqueous solutions, that they sometimes get a fit of obstinacy, and you cannot get them to assume the crystalline form. I have known this to occur more particularly when operating on a large scale, and from some peculiar circumstances, from some state of the atmosphere, or from some cause or other, to the great loss of time and property of the manufacturer. This difficulty may sometimes be overcome, by throwing some of the same kind of crystals into the solution. You will find that the process of crystallisation is often accelerated, by introducing some solid bodies into the solution; and the makers of sugar candy introduce strings into the saturated solution of sugar, on which the crystals become deposited. A stick is often put into a solution, and the salt separates upon it, and it is in this way that the baskets which you sometimes see are coated with crystals of the sulphate of copper, for the purposes of ornament. Here is a large crystal of citric acid, which has been obtained by putting a horse hair into a solution of the acid; now, if you withdraw the hair when you see that a perfect little crystal has been formed, and then immerse it into a stronger solution, you may succeed in procuring a crystal of considerable magnitude.

Now *light* has a most singular influence upon the formation of crystals. If you take two solutions of any salt, and set the one aside in a dark room, and expose the other to the light, you will find that the solution exposed to the light will crystallise more perfectly than the other. If you put a basin of salt in a room, and admit the light only through a small aperture, you will find that the crystals run up the basin on the side exposed to the light, and vegetate, as it were, in the basin in a most beautiful manner. So that persons who crystallise salts are often obliged to do it in a free exposure to light. There is another curious effect produced on crystalline solution by the *pressure of the air*, at least this has been said. If you take a solution of a salt of any kind ready to crystallise, put it into a flask and cork it up, you will find that no crystals will form so long as the air's pressure is kept off, but the moment you withdraw the cork crystallisation commences. As you see here (the experiment was shown), during the crystallisation there is a considerable *expansion* of the matter contained in the flask, and a certain quantity of heat is evolved. How the admission of air causes the solution to crystallise we do not know. It has been said that the crystallisation is produced by the air's pressure; but pressure will not do it. It has also been said, that it is occasioned by particles of dust falling upon the solution; but this is not the case. Agitation or percussion will also do it, and cause the particles of the salt to unite, but it does not seem a satisfactory explanation to say, that the admission of the particles of air produces the same effect.

Now, in regard to crystallisation generally, but more especially in regard to the formation of natural crystals, there is a curious fact which has long attracted the attention of chemists and natural philosophers, namely, in regard to what is called the *theory of crystallisation.* Of this subject I can only give you a hasty outline, as it would consume a great deal of time to go into all the details. However, I shall devote the remainder of this lecture to the giving you a sketch of the theory. Now this subject was first investigated by Romé de Lisle and Haüy. It was observed by Romé de Lisle, that on taking any number of crystals of carbonate of lime of different forms, that they might by careful mechanical division be all reduced to a rhomboid; or if he took a six-sided prism of calcareous spar, he found that all the fragments were of a rhomboidal figure. Haüy pursued these investigations, and succeeded in dissecting a number of crystals, and in arriving at a certain number of primitive forms, as he considered them. Now it happens that many substances have the rhomboid for their primitive form, but then the angles differ in different substances, but still we find in some different substances the rhomboids of the same angles. It has been long known to the cutters of gems, but especially to diamond cutters, that they can only obtain smooth surfaces when the crystals are broken in a given direction; and that if broken in other directions, the fracture is irregular and uneven. Whatever may be the form of the gem in its rough state, they can only cut it down into the regular octohedron. Now the case is the same with calcareous spar, and use may perhaps render it more evident with a prism of this kind (showing a wooden model of a six-sided prism). Now if we were to proceed carefully to the dissection of such a prism with gentle strokes of a hammer, we should find that only three of the solid angles would yield at one extremity, and that at the opposite extremity the opposite angles would yield, and that alternately.

Now these angles always have regular surfaces yielding planes, turning toward the primitive form of the crystal, generally at angles of 45°. If we go on breaking away, one angle after another, we shall come to this figure, which you see is again the shape of the original prism; continuing the dissection of the crystal we arrive at the rhomboidal figure, which is incapable of affording any other rhomboids. We thus arrive at the primitive form of the calcareous spar, which is always a rhomboid, having obtuse angles of 105°. 5 m., and you will find that each fragment you have removed presents some compound of the rhomboidal form. It is an object of some importance with mineralogists to be able to determine the angles of the different crystals, since, as it has been before observed, several crystals present the same primitive form with different angles. For the purpose of measuring these angles accurately, instruments called *goniometers* are used, and of these there are two kinds. The simplest consists of a semicircular scale of degrees, and a small pair of compasses destined to receive the crystal, one leg of which serves as a radius by which the number of degrees is to be read off upon the scale. The best, however, is that invented by Dr. Wollaston, in which a ray of light reflected from the surface of the crystal is employed as a radius, instead of the surface itself; it enables us to determine the angles of even minute crystals with great accuracy, and is called the reflective goniometer. But as happens in many departments of science, some one discovers some fact that appears to vitiate all our former conclusions, so it has happened here; and accordingly Mr. Mitscherlich has found that heat interferes very much with the accuracy of the measurement, by causing the particles of the crystal not to expand equally. Now, then, how are we to account for the great variety of secondary forms which these primitive forms produce? Why this I shall endeavour to make you understand, by using two or three familiar illustrations. In following the method just described, Haüy obtained six primitive forms, from which he supposed all the secondary forms were made up. Now let us take the dodecahedron with rhomboidal faces, and see how its formation can be accounted for upon Haüy's theory. He states that the cube is its primitive form, and that if you break it you find all its fragments cubical; but how can we understand how all its angles can be rounded off so as to produce a dodecahedron? Why, Haüy says that the secondary forms are composed of certain decrements of the primitive molecules. He says, that the original cube of the dodecahedron is made up of a great number of smaller cubes, and that if you place a succession of cubes decreasing by regular decrements upon each face of the primitive cube, you will have a series of decreasing layers of cubic particles upon each of its six faces, which will become a dodecahedron if the decrement be upon the edges. But if we substitute for our coarse work the more delicate operations of Nature, you may imagine that it can take place without producing any irregularity in the figures of which we have spoken. Now you can easily imagine bow in different shaped crystals the same primitive forms may exist, by recollecting that the decrements may go on regularly upon the edges, and not go on regularly at the angles; and that by irregular, intermediate, and mixed decrements, a great variety of secondary forms would be the result.

We now come to some of the difficulties to which this theory is open. If you take a piece of fluor spar, you will find that it may be broken into acute rhomboidal fragments, and these rhomboidal fragments may be again separated into tetrahedra and octohedra. It becomes a question which is the primitive form of the crystal, the tetrahedron, or the octohedron. Seeing that neither of them can fill space without leaving vacuities, or produce any arrangement sufficiently tenacious to form the basis of a permanent crystal; and it would be an absurdity to say that they were both primitive forms. To get over these and some other difficulties, Dr. Wollaston proposed that the ultimate particles of the crystal should not be considered as composed of geometrical angles as Haüy imagined, but that they should be regarded as being spherical; and he set to work to show us, that all the varieties of the form of crystals might be produced by a certain accumulation of these spheres. This subject was afterwards taken up by Mr. Daniell, and it appears that this hypothesis is better calculated to account for the formation of crystals than that of Haüy. If you press balls of the same size together upon the same plane, you have equilateral triangles produced; and if balls so placed were cemented together, and afterwards broken, the straight lines in which they would separate would form angles of 60° with each other. A single ball placed any where upon this stratum would touch those of the lower balls, and the planes touching their surfaces would include a regular tetrahedron. Then, again, in order to obtain an octohedron, you have only to take four balls and place one upon the centre of each surface, and you get the elements of a four-sided pyramid; you get the elements of the octohedron. It will be, therefore, sufficient to solve the difficulty of the primitive form of the fluor spar to assume, that the ultimate elements of the octohedron and tetrahedron may consist of spherical particles. But to obtain all the varieties of form we are obliged to call in flattened and elongated spheres, or more correctly, oblate and oblong spheroids, to our assistance. Mr. Daniell found that if an amorphous piece of alum be immersed in water, and left to remain quietly to dissolve, that at about the end of three weeks it may be observed to have been unequally acted upon by the fluid, and that the mass will present the forms of octohedra and sections of octohedra, as it were, stamped upon its surface.

Mr. Brande displayed a diagram of the appearance presented by the alum, and concluded by observing, that in the next lecture he should take a general view of the results of chemical attraction.

FOREIGN DEPARTMENT.

CHYLE OBSERVED IN THE VEINS OF THE JEJUNUM.

By Professor MAYER, *of Bonn.*[*]

FROM my own observations, as well as those of Magendie and Tiedemann, it has been proved that the veins of the intestinal canal are capable of absorbing the different fluids which it contains. That these veins also take up chyle, is certainly not to be denied, although the fact cannot be easily demonstrated. Every piece of information, therefore, will be interesting, which confirms the opinion that the veins of the intestines absolutely absorb chyle, in a manner independent of the lymphatic system, or of those lacteals, the mouths of which open into the veins, as has been recently shown by Fohmann. The fact did not certainly escape the attention of former anatomists, although their observations on the matter are few. Swammerdam, Falkenberg, Meckel, sen., found chyle in the veins of the intestines, and Menghini, also observed it in the veins of birds; and in modern times Tiedemann * observed in the vena porta white streaks which resembled chyle. Others deny the possibility of the fact. The following case occurred to my notice:—

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[*] Tiedemann's and Trieviranus's Zeitschrift für Physiologie, vol. i. p. 331.

A robust man, about seventy-nine years of age, died suddenly from a severe attack of asthma, and his body was soon afterwards brought to the anatomical theatre at Bonn. The chest, as well as pericardium, contained a great quantity of serum. The lungs strongly adhered to the lining membrane of the chest, and contained several tubercles and small abscesses. The viscera of the abdomen presented no diseased appearance. The upper and lower extremities were both anasarcous. The intestines were now removed from the body for the purposes of anatomical demonstration. On examining separate parts of the intestine with care, I observed both on the outer and inner surfaces of the small intestines, vessels of a greyish white colour. At first I took these vessels for lymphatics, but on a closer inspection, found that they were veins. The lower third of the duodenum, the whole jejunum, and a part of the ileum, were covered with these veins, which contained a fluid very similar to chyle; but this fluid only existed on the ramifications of the veins, situated on the surfaces and borders of the intestines; for at the spot where the two layers of the mesentery met, the veins contained blood. On dividing these small veins, a thick greyish fluid, resembling chyle in appearance, was poured out; the small intestines were filled with chyme. No lymphatic vessels containing chyle could be discovered. Unfortunately the other organs were in such a state as to prevent the examination being further prosecuted.

It scarcely admits of doubt that these veins really contained chyle; but it will be asked how the lymphatic vessels of the intestines contained no chyle, although the man appears to have died at the moment when the formation of chyle in the jejunum and duodenum was taking place? This question I am unable to answer, but the appearance which I observed stands recorded. The vitality of the venous probably continued longer than that of the lymphatic system, and that of the right longer than the vitality of the left side of the heart. If this were the case, the systole and diastole of the right continued longer than those of the left cavities of the heart, which might have exerted an influence on the absorption of the chyle, by the extremities of the veins of the intestines.

BRAIN OF THE DOLPHIN.

Professor Tiedemann of Heidelberg* has recently published an account of the dissection of the *dolphin*. The following are the results of this learned anatomist's investigations:—

1. The cerebellum of the *dolphin* resembles that of the simiæ by its size, and next to the cerebrum of the ourang outang, most resembles that of man.

2. Each hemisphere of the cerebrum, as in man and *simiæ*, consists of three lobes, an anterior, middle, and posterior. The hemispheres are undoubtedly much smaller than those in man, since they do not completely cover the cerebellum.

3. The breadth of the cerebrum of the *dolphin* exceeds its length, which is scarcely the case with any other mammalia.

4. The convolutions of the cerebrum of the *dolphin* are more numerous than in any other animal, even that in man.

5. The lateral ventricles consist in the *dolphin*, as in *man* and *simiæ*, of three horns, whilst in other mammalia the anterior and middle cornua only exist.

6. The *corpora albicantia* in the cerebrum of the *dolphin*, as of most mammalia, are united into one mass. In man and the *ourang outang* they are perfectly distinct.

7. The fornix, septum lucidum, cornua ammonis, and corpora striata, are in proportion to the size of the cerebrum of the *dolphin*, and smaller than the same parts in man.

8. The corpora quadrigemina in the *dolphin*, as in other mammalia, are much larger than these bodies in man.

9. The cerebellum of the *dolphin* is distinguished by being much larger than in man; and its middle portion, as in *seals* and several other animals, is not symmetrical.

10. The medulla oblongata of the *dolphin* possesses no trapezium.

11. The brain of the *dolphin* is particularly distinguished from that of man, and all other mammalia, by the absence of the olfactory nerves. But on the whole, the brain of the *dolphin* is developed in a greater degree than in any other mammalia, if we except that of the *ourang outang*.

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* Versuche über die Wege auf welchen Substanzen, &c. Heidelberg, 1820, p. 74.

* Treviranus's and Tiedemann's Zeitschrift für Physiologie, vol. ii. p. 265.

DISCOVERY OF A CIRCULATION IN INSECTS.

The following account of circulation in insects, is taken from Professor Carus's Zootomy, a well executed translation of which work has just appeared by Mr. Gore of Bath:—

Professor Carus's observations were first made upon the larva of the *agrion puella*, which swims with great velocity by means of three vertical laminæ attached to the caudal extremity, and diverging from each other at very acute angles. In the young larva, there is no trace of any wings; but as it advances in age, rudiments of wings make their appearance over the rings of the thorax, and gradually increase to their full size, whilst the caudal laminæ, on the contrary, in the same proportion, fade away, and are partially or completely detached. Each of the caudal laminæ, in its natural vertical position, presents an inferior abdominal, and a superior dorsal, edge, has two tracheal trunks running along its centre, and ramifying through it, and consists of granular substance contained between two strata of the external integuments. A current of blood globules enters each caudal lamina, somewhat nearer to the dorsal than the abdominal margin of the lamina. The path or channel thus formed in the midst of the granular substance is perfectly transparent, except where it is occupied by the blood-globules, or crossed by branches of the trachea. The parietes of the channel are not strictly defined, nor formed by anything like the coats of a vessel, the blood, with its globules, circulating through the granular parenchyma, a circumstance, however, which is not peculiar to this case, but also occurs generally in the first states of the circulation, as it presents itself, for instance, in the embryo of fishes, and in the figura venosa of the incubated egg. The blood-globules are elongated like a grain of wheat, considerably larger than those of the human blood, and float in a fluid, which is invisible on account of its transparency, but the existence of which is proved by the variations in the position of the globules in the current, sometimes following its direction, at others crossing it transversely, or more or less obliquely.

When the animal is vigorous, this current is unclosing and uninterrupted, although its velocity is accelerated at regular intervals, and that not only in the abdominal or excurrent, (arterial,) but also in the dorsal or recurrent, (venous,) part of its course through the laminæ. When the animal becomes exhausted, or the caudal laminæ exsiccated, the circulation through them is uninterrupted, and, in the same manner, as under the same circumstances in the larvæ of frogs and salamanders, the disturbance displays itself not merely by a cessation of the process, but also by retrograde movements of the currents, or by oscillatory motions of the blood-globules.

In proportion as the wings are developed, the circulation in the caudal laminæ diminishes, and ultimately ceases, preparatory to the detachment of the laminæ themselves. At the same time, however, the circulation presents itself under a new form in the wings themselves. These organs consist of two layers of the integuments, including between them a collection of granular substance divided like net-work into little islands, by the intersection of transparent canals, the largest of the canals taking its course round the margin of the wing, and the whole organ being interspersed with minute tracheæ. These canals present a circulation similar to that in the caudal laminæ, the excurrent (arterial) stream taking its course along the inner margin of the wing, and the recurrent (venous) returning along the outer—whilst, occasionally, other transverse currents take their course through the net-work of the wing, from its inner to its outer margin. As the wings are further developed, the circulation in them, like that in the caudal laminæ, gradually becomes weaker, and ultimately ceases.

The aquatic larva of the ephemer a *vulgata*, according to M. Carus, presents the phenomena of the circulation with still greater distinctness than the preceding animals, and even more clearly than it is possible to recognise it in the larva of frogs and salamanders. In it the circulation is at once visible (with the microscope) in the three last segments of the body, but by a little attention is discoverable, not only in the three terminated spiculæ, and in the upper phalanges of the legs, but also in the head, and particularly in the roots of the antennæ. In the posterior part of the body, there are on each side two currents of blood, not bounded by any regular parietes like those of vessels situated on each side of the intestinal canal, and rather towards the abdominal surface of the animal: of these two streams on each side, the outer is the smallest, and the inner the most considerable. The external one resembles the lateral current in the larvæ already described, and communicates with the internal by several intermediate branches: it is probable from this one too, that the lateral streams are detached in the form of loops into the upper phalanges of the legs, though it is not possible precisely to ascertain this point, nor even whether the two lateral currents on each side continue distinct in the thorax, which it is most probable that they do, as the current in the upper phalanges of the legs is of the same size as the external of the two which appear in the posterior part of the body, from which the internal differs by its greater size. At the ninth abdominal segment of the body, these two lateral currents on each side, which flow posteriorly from the head towards the caudal extremity of the body, change their direction, and are inflected so as to enter the pulsating heart, from which the current of blood is again impelled towards the head. Before the lateral currents enter the heart, they give off three streams, one for each of the three caudal spiculæ, running through the greater part of the length of each spicula, and being then suddenly reflected towards the heart. It is not possible to ascertain precisely from which of the two lateral currents of the body these caudal streams are detached, though, most probably, from the external; that they come direct from the heart is improbable, as the excurrent (arterial) division of each (caudal) stream corresponds to the abdominal surface of the spicula, and the recurrent (venous) to the dorsal, the heart being situated on the dorsal, and the lateral currents on the abdominal aspect of the body. The currents in these caudal spiculæ present the phenomena of the circulation with peculiar distinctness, and are particularly remarkable from the circumstance that the excurrent and returning streams, though in close approximation, and not separated in any visible manner, continue to flow without disturbing each other. The excurrent stream is accelerated at regular intervals, corresponding to the pulsations of the heart; the recurrent, on the contrary, being always somewhat more sluggish, and the first to stagnate and cease, when the strength of the animal is impaired.

When the extremity of one of the caudal spiculæ is cut through, the blood globules are expelled in some quantity with an evident jet, and accumulate on the injured surface, where, when they are dried up by exposure to the atmosphere, they change their natural limpidity for an evident apple-green colour.

It has been already mentioned, that the heart propels its contents through the anterior part of the dorsal vessel towards its head; the current, however, in the thorax, and in the upper part of the head, is concealed by the opacity of the horny segments of the cutaneous skeleton, and by the contents of the stomach. In the anterior part of the head, however, we can discover currents in the roots of the antennæ, forming loops like those in the legs, the current in each proceeding from the cranial surface of the head, and in returning through the root of the antennæ, taking its course towards the laryngeal region. Nay, by means of the direct light of the sun thrown on the object, an indistinctly defined, but very evidently existing, current may be traced forwards through the thorax and over the upper part of the head, and may be seen to be reflected towards the posterior part of the body in the laryngeal region. Hence, consequently, this larva presents the first instance in which it was possible to trace a true and perfect circulation through the whole body.

The endeavours of M. Carus to discover any evidence of a circulation in fully developed insects, *e. g.*, house-flies, gnats, ephemeræ, &c., were without success until a very recent period (May, 1827). On examining the ways of the semblis *vividis*, immediately after its metamorphosis from the larva state, he discovered the circulation through all the vessels of the wings with the utmost possible distinctness. The wings were still soft, but perfectly developed for flight; the circulation was still visible, though in a less vigorus state, two days afterwards, when the animal died. Still more recently he has observed currents of blood in the larvæ of water-beetles, (hydrephilus and dyticus,) aud adds, from a notice by A. V. Humboldt of the travels of Ehrenberg and Hemprich, (in Africa ?) that those naturalists have also observed similar currents in the wings of a maubis. Hence it follows, that even at this early period of the discovery, a circulation has been detected in four orders of insects, viz., neuroptera, coleoptera, diptera, and orthoptera, a circumstance that affords the strongest excitement to further investigation in other insects, and under various circumstances.

Of the objects and character of this circulation little can at present be said; its existence, however, in the rudiments of wings tends, in a very remarkable and unexpected manner, to confirm the idea deduced by Oken from analogical considerations, viz., that the wings of insects are exsiccated gills. As regards the cessation of circulation in the perfect insect, or rather its limitation to the dorsal vessel, M. Carus endeavours to show that, though an extreme instance, there are analogous cases, in which, though of less extent, a circulation that once existed no longer presents itself in the fully developed state. Thus, the medulla contained in the cavities of the bones of young birds disappears as they advance to full development, and with it the vessels by which it was supported. Such, also, is the case with their feathers, which, in the early periods of their formation, are exceedingly vascular, and thus, probably, connected with the respiratory function. So, also, in the fœtus of mammalia, the allantoid circulation disappears, aud its vessels are obliterated in proportion to the development of pulmonary respiration. The fact that the currents of fluids in the larvæ of insects are not defined by vascular parietes, enables us to comprehend the rapidity and facility with which the traces of the circulation are lost in the perfect insect. On the other hand, the existence of a circulation at one period, and its cessation at another, elucidate many circumstances connected with the physiology of these animals; for instance, the contrast between the rapid growth and transformation of the larva, and the stationary existence of the perfect insect; the inconsiderable size to which the body attains in this, as compared with other classes of animals; the frequently very short duration of the existence of the perfect insect, in proportion to the prolonged periods of its larva state; its almost total independence of nutrition; and the absence of the power of reproducing parts that have been lost or destroyed.

It still remains to determine at what period of development the phenomena of the circulation first present themselves; to observe more precisely its occurrence in other orders and species, particularly those where the larva is not aquatic, and where, perhaps, it exists only in the ovum; to fix the period and manner of the cessation of the currents of blood, and to distinguish, on the one hand, the cases where the circulation may be supposed to cease, even in the larva state, or, on the other, to continue in the perfect insect.

Lastly, it may be remarked, that the phenomena of this circulation, so far at least as it has been traced, do not throw any light on the obscure subject of the mode of nutrition in perfect insects, which, therefore, must still be supposed to be effected, according to the idea of Cuvier, without the intermedium of vessels. On the other hand, the demonstration of the original existence and subsequent cessation of a circulation, renders more than ever untenable the hypothesis lately suggested by Dr. Kidd, (Phil. Trans. 1826,) that the tracheæ, already recognised as respiratory organs, are, at the same time, employed in the conveyance of nutritive fluids.

ROYAL INFIRMARY, EDINBURGH.

DR. BALLINGALL'S CLINICAL LECTURE.

Considering myself accessory in some measure to the birth of this foundling of the lecture room, I am bound by the natural law of parentage to take it under my especial protection, and endeavour to correct its puerile delinquencies. Though it ungratefully disclaims me as the remote cause of its existence, it betrays in every feature the source of its descent; for, however ingeniously it may attempt to screen its pedigree, it is certain, at least, that until my fertilising spirit breathed on the sterile scene of its nativity, that institution evinced no symptoms of literary parturiency. I am not, however, in the slightest degree offended by such an irreverent disavowal of its origin, as it does my creative powers but little honour; and leaving its ostensible parent to enjoy the alternative of certain unwedded dames, who conceal their frailties under the plea of spontaneous conception, I shall discuss its pettish foibles with the indulgence due from paternal affection to a wayward offspring. But a better reason than the unprofitable vanity of substantiating my claims to its indirect production, or the petty gratification of chastising its author, induces me to examine its lineaments, the circumstances by which its appearance has been attended, and the former state of apathy of the party from which it emanates, with their present efforts to give an air of sincerity to their hollow policy. The writer obviously belongs to that classical school of medical literature, founded by Surgeon Johnstone, &c.; he composes much in the same style of attic elegance, uses the same simple and perspicuous system of logic, and labours for a similar object with a laudable congeniality of principles. Every sentence, indeed, uttered by this liberal and enlightened academy, on being compelled into something like a performance of their duties, is of value as an historical evidence of their former supineness; and every apology made for their neglect, may amuse, if not instruct us, as specimens of the amazing ingenuity of the human mind. They would now have the world to believe, since hospital reports have been made fashionable, that they never as much as received a hint on the subject from a different quarter. To acknowledge an omission, is beyond the reach of their magnanimity; and they consequently prefer the honour of being detected in the act of plagiarism, to the pleasure of being applauded as rivals and imitators of an original and invaluable innovation in medical literature. In submitting to the public the samples of their hospital industry, they imagine that by concealing the name, they injure the inventor, and give to their own conduct the merit of voluntary exertion. It affords the grieved spirit of these grown-up children a melancholy pleasure to hide their motives from view, thinking, no doubt, like the scared infant, when it buries its face in its nurse's bosom, that all is secure when they fold up the secret springs of action in the silence and darkness of wounded self-love. Before the predecessor of the present production appeared, not one Number of the Johnstonian press ever thought of demanding such contributions as a right from the wards of the Infirmary; but now that such productions have appeared, the stench of servile adulation ascends to their author from every quarter. Believing, or feigning to believe, these empty ebullitions of flattery, he shapes his address in conformity with the applause of Drs. Johnstone, Craigie, and Macleod, who cannot of course do less than believe him in turn, according to the established usage of the old Scottish amusement of "Caw me, caw thee." Thus the "summary which he gave at the conclusion of the last course of clinical lectures, was so favourably received by the pupils, that he feels encouraged to undertake a similar review of some of the cases which have fallen under their observation during the course which he is now about to close." *Fortuna favit fortibus* would seem to be the chivalrous motto which inspired this dauntless introduction; for even an ordinary adventurer in fiction would have reined his steed on the brink of so broad an affirmation. Probably the learned doctor's long attachment to the camp may have betrayed him into the error of transferring the tactics of the art of war into the peaceful pursuits of rhetoric; and that as the case was desperate, he might take his reader's conviction by storm. But notwithstanding this impetuous assault on their credulity, he wishes very humanely "to impress them with the importance of comprehensive views of hospital practice, convinced that it is by these the practice of such establishments must be regulated and improved, rather than by the publication of isolated cases, whether successful or otherwise;" and to mark his own impression of the importance of such an undertaking, he ushers in his own accomplishment of this laudable design, by assuring the world that "circumstances have prevented him from completing such a comprehensive view with sufficient accuracy to lay it before the public." By this very consistent apology, we are shrewdly given to understand, that "isolated cases" are most pernicious food for the mind, when published by unauthorized persons; but when printed by the Doctor himself, are most wholesome and salutary nutriment for pupils and practitioners; since his own, notwithstanding the anathema pronounced against the practice, are but "isolated cases," circumstances having unfortunately prevented him from completing a comprehensive view. The panegyric on hospital reports appears, indeed, but another military stratagem of the Doctor's to batter down "isolated cases" from a moral elevation; but he unwarily exposes his positions to the destructive fire of his own artillery. If it were not for these confounded "isolated cases," we should never, in all probability, have heard one word in praise of "comprehensive views;" and the world would have known as little of the proceedings within the walls of the Royal Infirmary, as it does of the occurrences in the haram of the grand Sultan. But then "much has been recently done in this country in the way of publishing hospital reports; but to give them all the utility of which they are susceptible, such publications should be undertaken on a more systematic, extended, and unreserved plan; so that the results of different hospitals may become fair objects of comparison, and that where different results are exhibited, the profession may be enabled to judge whether *this is* attributable to a difference in the size, situation, construction, and interior economy of the hospitals, to a difference in the class of patients admitted, or to any peculiarities of medical or surgical treatment which may be adopted in them." The doctor is still his own centre, to which all his arguments converge, seeming more anxious about the petty vanity of appearing as successful as his contemporaries, than about realizing the real objects of reporting hospital practice. The whole indeed, of this singular introduction, is so obviously levelled at this Journal, and is so impotently malicious in its tendency and execution, that it scarcely deserves further consideration. The impression on the writer was, evidently, that the utility of hospital reports was now incontrovertibly established, and that their future publication could not be prevented; but as he could not deny the one, or avert the other, the only expedient left was to follow the current of popular opinion, and to make it subservient to his own views. We cannot, says he, in other words, deny the principle or obviate the practice, but we may affect to praise the one and execute the other, so that our proceedings may at least appear in a dress of our own manufacture. He might as well, indeed, at once have told his pupils that the sun is a most obnoxious orb; that it offends the eye by its brilliancy, and rivals all objects indiscriminately in its universal effulgence; but as we cannot dispute the general usefulness of light, or suppress its illumination, we can only light a little rival lamp of our own, whose rays we can colour at pleasure, and direct on those objects only which we wish should be made visible to the public. If to this sagacious design he had added a proposition for raising a wall on the border to shade the north from the odious beams of the southern luminary, the wisdom of the speculation would have been complete.

SCOTUS.

Edinburgh, Oct. 12, 1827.

GUY'S MEDICAL SOCIETY.

Saturday, October 13th.

DR. BRIGHT, President.

THE discussion arising from Dr. Hodgkin's paper on Medical Education was resumed this evening, and in consequence of the publicity given to the proceedings of a former evening, with an intimation of the subject being renewed, the theatre was crowded to excess. Indeed it was matter of common remark, that for several years past such a numerous assemblage had not taken place—affording one of the best proofs of the advantage resulting from a publication of the Society's transactions, as well as of the intensity of feeling, happily now awakened, on the subject of Medical Education.

In our last account of the discussion, it was remarked that Dr. Hodgkin had dwelt upon the importance of the anatomy of the respective tissues of the body, being more fully taught than it is at present by the anatomical teachers of London. These remarks in the second reading of the paper called up

Dr. WHITING, who contended that it was an unnecessary expenditure of the student's limited time, to learn the minute anatomy of vessels and nerves; he thought that general anatomy was sufficient for all practical purposes.

Mr. DODD (one of the Demonstrators of Guy's) spoke of the " lamentable state of ignorance" shown by the major part of those embarked in the practice of the medical profession. He imputed this to a want of time being allotted to the medical student, in the acquirement of necessary information. Such, he said, were the multiplicity of subjects to which the student was required to give attention, and within such a very narrow limit of time, that he knew many were not merely perplexed, but literally borne down by a contemplation of the labour. He regretted that the love of science prevailed so little, that the medical profession in this country should be degraded into a mere " money-getting trade." He thought an extension of time to the medical student was highly desirable, but he considered that something should be done by the corporate medical bodies, to excite a spirit of emulation by the distribution of prizes.

Dr. REES spoke to Dr. Whiting's opinion, that general anatomy was sufficient to the medical student. Dr. Rees mentioned a case of hernia, in which Mr. Chandler was the operator, Mr. Cline, senior, being present; in the progress of the operation, it became a question, whether the tumour which was exposed was the intestine itself, or whether it was the hernial sac. Mr. Cline was referred to, and he gave his opinion that the part exposed was the hernial sac, and for this reason: the blood-vessels could be seen passing in a longitudinal direction, whilst in the intestine they took a circular course. Dr. Rees said, that he mentioned this fact in confutation of Dr. Whiting's opinion, that a knowledge of the distribution of minute vessels was unnecessary.

Mr. HARDY, senior, expressed his opinion that a *complete* knowledge of anatomy was requisite to the medical student. He should not wish to have it said of the anatomical knowledge of the English student, as had been said of the learning acquired at the Scotch Universities, that " Every man got a mouthful, but none got a bellyful."

A Gentleman, whose name we could not ascertain, but who described himself as a Borough student, made some very pertinent observations on the want of attention to the studies of a young man during his apprenticeship, previous to his arrival in London; also upon the inefficient manner in which the surgeons performed their clinical duties. He said, that he had been through the hospital, with some of the surgeons, and they had scarcely spoken a word in going round; he hoped that the students would not forget that they had paid their money for a certain consideration, which if they did not receive, they would meet as gentlemen, and temperately remonstrate with the surgeons.

Mr. LAMBERT said, that he had attentively listened not only to the speeches of this evening, but also to those delivered at the last meeting; and referring to these he thought he was right in concluding that an evil existed, viz. that medical education in this country was exceedingly defective; but although the evil had been thus universally acknowledged and deplored, yet he had heard no adequate means proposed for its removal. Dr. Hodgkin had drawn a painful, but still as he (Mr. Lambert) believed, a faithful contrast between the acquirements of the French and English medical student; but to what *cause* was the superiority of the French student attributable? He believed, to the circumstance of an *efficient test*, of the student's abilities and attention, being established in France, *whilst in England no efficient test existed*. He would compare the course of medical studies prescribed to the French student with those required in this country. In France, a good preliminary education was ensured by the student being compelled to undergo an examination in the different branches of natural philosophy, previous to his entrance upon medical studies. This examination being passed, and a degree called Bachelorship of Sciences obtained, the student was then required to spend four years in the prosecution of his medical studies, and to attend, during this time, a certain number of inscriptions, including every branch of medical science. *Clinical surgery, clinical medicine, forensic or state medicine*, which were almost entirely neglected in this country, constituted prominent features in the list of studies. Lastly, previous to a qualification being given for practice, the French student underwent *five days public* examination.

Now, continued Mr. Lambert, look at the studies thought necessary by the governing medical bodies of this country—by the *Worshipful Apothecaries*, and by the College of Surgeons; contrast their paltry, inefficient regulations, with those established in France, and their *trivial examinations* also. Here was to be found the true cause of medical education being at such a low ebb in this country—this was the reason why the French had so far outstripped us in every department of medicine. He supposed that no one would dispute the necessity of a test of qualification; the public, who were not and could not, of necessity, be judges of a medical man's competency, expected, and it was the duty of a good government to provide, such a security. He was satisfied that a total revolution of the present order of things must and would come, and that nothing short of this would remedy the evils which they had met to discuss. That which he contended for was—the necessity of *every* medical practitioner receiving a complete education, and this to be verified by a *rigourous test*:—this might be denominated a *levelling* system, indeed he had seen it absurdly enough stated in print, that a diffusion of knowledge amongst every branch of the medical profession, was a system of "equalization."—But who were the persons that raised this senseless cry?—they were those who felt conscious that they were upheld by artificial props—that the broad light of knowledge would outshine their feeble glimmering, and therefore they feared it. He, Mr. Lambert, had heard one of the examiners of the hall declare, at the last meeting, that as the apothecary was destined to be a mere drudge, so his education should be limited; if his indignation had been excited—if he had felt his "gorge rise" at this declaration, it was subdued on subsequent reflection, that the apothecary alluded to was the *degraded* THING defined in the act, as the preparer, mixer, and compounder of medicines prescribed by some "legally authorised physician," and not the general practitioner. With respect to the want of clinical instruction, Mr. Lambert said, that he certainly felt some delicacy in alluding to this subject in the presence of the hospital surgeons; he was ready to acknowledge that he had always readily received from them the information which he required on different cases, but still he would observe, there was a notorious and palpable want of method in communicating clinical instruction to the pupils in general; and he hoped the plan adopted in the foreign schools, and so fully described by the author of the paper, would be followed up in this country, and especially at this hospital. He should expect to see some benefit derived from it, but not to the full extent which many anticipated, for although many of the students would attend from an earnest desire of improvement alone, the majority he feared would require some compulsory measure, as for instance, in France, where certificates of actual attendance on clinical surgery and medicine are required before the examination for a diploma. In confirmation that such a measure as this was necessary, he would mention a striking fact (and he appealed to the Chairman in support of his assertion), that clinical medical lectures were announced at this hospital, but that none of the pupils attended.

The reading of the paper was resumed by the Chairman, and continued until some remarks of Dr. Hodgkin, on the importance of the office of dresser, were stated, and a hint given of the propriety of shortening the usual period of a dresser's attendance, from twelve to six months, by which means a larger number of pupils would be enabled to hold this situation.

Mr. Lambert then said, that he would offer one remark; namely, that many of the dressers held their situation on the occasion of their first coming to town, when they were totally ignorant of anatomy: he pointed out this as a gross and palpable evil.

Mr. HARDY, jun., corroborated Mr. Lambert's assertion, and said, that he had known at least twenty instances of young men holding the situation of dresser, commencing with their first season in London. Mr. Hardy pointed out various instances in which prompt assistance was required at the hands of the dresser, and in which anatomical knowledge was indispensable; he called on Mr. Key, who had, on a former evening, held that practice should precede theory, to say whether he did not find this mode objectionable, of learning practical duties before obtaining a knowledge of those principles on which a due performance of the said "practical duties" was founded—he should be glad to hear Mr. Key's opinion on this subject.

Mr. **Key** said, that with respect to himself, he made a point of not receiving a dresser until he had spent twelve months in London.

In the continuation of the paper, the importance of the student carefully attending to "internal pathology," or in other words, morbid anatomy, was fully dwelt upon; and Dr. Hodgkin lamented that it should have been said, by the "*highest medical authority*," that too much attention was paid to this subject, to the neglect of symptoms and a proper treatment of disease; he did not think that such a caution, as it professed to be, was at all called for in England.

In reply to this,

Dr. **James Johnson** observed, that he hoped it would not go abroad, that the "*highest medical authority*" had declared pathology to be of no importance in the study of disease. He knew to whom and to what Dr. Hodgkin referred: some lectures had lately been given where the subject was treated on; he need not mention names (here there was some whispering of Dr. Yeats' name amongst the members); the "highest medical authority," he conceived, in any country, was not any one individual, or any particular body; it was the general sense of the medical profession which was the "highest authority."

Dr. **Whiting** and Mr. **Hardy**, sen., spoke of the benefits likely to result from a school of medicine being established in London; and they both considered it had long been disgraceful to this metropolis, possessing many large hospitals, that students should hitherto have been compelled to go to Edinburgh to study clinical medicine.

The business of the evening was ultimately terminated by a discussion on the comparative merits of hospitals and dispensaries, a point alluded to by Dr. Hodgkin, who advocated the advantages of attending a hospital, seeing that much valuable time must necessarily be consumed by the medical student visiting "the scattered patients of a dispensary." Dr. Whiting (one of the physicians to the Surrey Dispensary), *lustliy* contended that every possible advantage was given to the student, by attending the practice of a dispensary; and Dr. James Copland (ex-physician to the South London Dispensary), expressed his opinion that an hospital was more favourable to the study of disease than a dispensary.

A vote of thanks was unanimously given to Dr. Hodgkin, for his valuable thesis, and the society parted at ten o'clock.

LONDON MEDICAL SOCIETY.

Dr. **Haslam**, President, in the Chair.

In consequence of the indisposition of the Registrar, no minutes of the last meeting had been reported; and several members who had been absent on the former evening, were desirous that Mr. **Iliff** should again read the case of paraplegia. This occupied a considerable portion of the allotted time, and the remainder was consumed in recapitulations, and by remarks of Mr. Lloyd, respecting the method of treatment that had been adopted. Mr. **Callaway**, who had been called in, defended the measures he had directed, on the ground of experience.

ST. BARTHOLOMEW'S HOSPITAL.

SEROUS EFFUSION INTO THE CELLULAR TEXTURE OF THE SCROTUM.

A countryman, of a ruddy complexion, between thirty and forty years of age, was admitted under Mr. Earle, on account of a very sudden and rapid enlargement of the scrotum. It presented a prima facie appearance of effusion of urine; it was enlarged at least to six times its natural size, of a dark red colour, and exceedingly painful. On inquiry we learned, that during the two or three previous days he had walked a considerable distance, the weather being extremely hot. The day prior to admission the scrotum appeared rather redder than natural, was slightly painful, and perhaps triflingly enlarged. This he considered of too slight a nature to interfere with the prosecution of his journey; he proceeded onwards, and arrived in town on the evening of the same day. He felt fatigued, but took no further concern about his scrotum: no sensation of uneasiness directed his attention to it. On rising on the following morning he was struck with its sudden and rapid enlargement; it was exceedingly painful; and, becoming alarmed, he quickly sought admission into the Hospital. He was able to void his urine freely in a full stream; at no time had he experienced any impediment to its ready transmission. Mr. Earle having obtained the preceding history from the patient, proceeded to pass a bougie. The instrument gave no indications of the existence of a stricture, it passed freely into the bladder. He had a flushed countenance, and full and quiet pulse. Tongue coated with a white fur; heat of skin; cutaneous transpiration copious. Mr. Vincent, who saw the case, in conjunction with Mr. Earle, regarded it as serous effusion into the cellular texture of the scrotum, resulting from local irritation, probably induced by the friction of the patient's clothes during his three days journey in the hot weather. Mr. Earle coincided in opinion with his colleague Mr. Vincent; and as a means to relieve the tension of the part, Mr. Earle made a longitudinal incision through the whole length of the anterior part of the enlarged scrotum, on either side the septum scroti. There was but slight bleeding from the divided vessels. The part to be constantly fomented during the remainder of the day, and at night enveloped in a large bread and water poultice. A dose of calomel and jalap to be taken immediately, and the saline mixture, with sulphate of magnesia, every six hours. On the following day the scrotum was reduced about one-third in size, and was less irritable and inflamed. He had passed a tolerably easy night; his bowels had been freely opened, and the febrile excitement was diminished. To continue the poultice and the saline medicine three times a day. We attentively observed the case to its termination. The bulk of the scrotum daily diminished; he lost all febrile excitement in less than a week. The cicatrization of the incisions, though slow, was progressive; and about a month from his admission into the Hospital he was discharged cured.

EXTENSIVE FRACTURE OF THE BONES OF THE PELVIS AND INFERIOR EXTREMITIES.

E. W., an elderly man, about sixty-five years of age, was brought to the hospital, late in the evening, on the 5th, in consequence of a brewer's dray having passed over him. We were informed, that about twenty minutes previously, as he was proceeding along Shoe-lane, in company with his paramour (an old woman, evidently on the wrong side of sixty,) his foot slipped from off the curb stone, when he was precipitated on the pavement, right a head of the dray, which instantly passed over him. He was taken up, and immediately conveyed to the hospital. There is an inversion of the left foot, with evident fracture of the right thigh, the bones riding on each other. Proceeding carefully to examine the different bones, it was observed, that on attempting to rotate the left leg, it suddenly regained its natural position, accompanied with a noise as if a bone had slid into its socket. The hand being placed on the great trochanter, a crepitus was communicated to it, on the limb being rotated, indicating fracture at its basis. The fibula of the same leg was fractured about its lower third; there was a severe contusion on the right ancle, but no fracture or displacement; the fracture of the right femur was oblique, about three inches from the condyles: the whole of the inferior extremities were severely bruised, but no other fractures were detected. The man was placed in one of Mr. Earle's beds, and the fracture of the right femur carefully secured with splints. His answers were vacillating and confused, his pulse small and weak, and the surface of his body much below the natural standard of heat; presently there was an involuntary discharge from his bowels. The house surgeon gave him m. xx. of laudanum, and ordered wine and water to be given at intervals during the night.

On the following morning he was seen by Mr. Vincent. But slight reaction had taken place, the skin had not recovered its natural temperature; pulse small and weak, tongue dry, fæces passed involuntarily; there was that general tremor of the frame, commonly attendant on the latter stages of febrile diseases. Wine and ammonia to be given during the day.

Wednesday. Night passed in a low muttering delirium. Surface of the body rather warmer; pulse somewhat fuller; tongue dry and parched; fæces passed involuntarily. Brandy and ammonia to be given during the day, and a dose of laudanum at night.

10 p. m. Changed for the worse: his countenance is sunken, respiration very laborious, pulse slow and weak, and the surface of his body bedewed with a cold clammy sweat. He continued gradually sinking till about four the following morning, when he expired.

Sectio Cadaveris.

The circumference of the bony rim of the acetabulum was broken off, the fragment retained in its position; the tendinous bands that interlace themselves around the cavity of the joint remaining entire. This will account for the inversion of the left foot, when admitted, and the noise that was subsequently heard on attempting to rotate the limb. The head of the femur must have been thrown just over the brim of the acetabulum; the ligamentum teres was entire, and the probability is that the head of the bone rested on the broken fragment of the ilium, when on attempting to rotate the limb, it slipped into its socket, the fragment of the ilium regaining its natural position. There was fracture at the base of the trochanter, as was imagined; it did not include the whole circumference of the bone. A fracture ran through the body of the os innominatum, so as to divide it into nearly two equal portions; the edges of the bones stood over each other, to the extent of two lines; there was partial dislocation of the sacro-iliac symphysis of the same side; the viscera were uninjured.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

CASES OF CARCINOMA.

We need, we presume, offer no apology for reporting the following cases of Cancer, which, occurring, as they did, together, tended so highly to illustrate the varied forms in which this dreadful disease may be developed.

CASES OF CANCER OF THE MAMMA.

M. B., æt. 65, married. Immediately above the situation of the lower and anterior margin of the great pectoral muscle, there is a large ulcerated excrescence, of a globular form, with ragged and everted edges; the pectoral muscle is much swollen, but this appears to arise from disease in the cellular structure situated below. A chain of large and hard lymphatic glands, leading from the open ulcer to the axilla, is very perceptible, and the connexion between them can be traced without difficulty. The soft parts of the outer and superior portion of the arm are much swollen, and extremely painful, and the glands under the clavicle are also diseased. She suffers excruciating pain, of a lancinating character, in the pectoral region, and more particularly in the arm and shoulder; she is hectic, passes sleepless nights, and experiences much general uneasiness; she has frequent pains in the chest, increased on full inspiration; pulse generally about 100: she is weak, and much emaciated, and her countenance is of a livid colour, and expressive of anxiety and pain. Two years ago a hard painful tumour formed, without any cause, under the nipple, which proceeded gradually to cancerous ulceration. Mr. Wardrop removed the mamma last January, the disease being at that time confined entirely to the breast The wound healed, except a very small portion, which degenerated into an ulcer; this for several weeks remained stationary, then gradually extended, becoming of a more cancerous aspect, and ultimately assuming its present form, the glands and neighbouring parts being consecutively affected.

This case has run the common course of schirrus and cancer; the healing of the wound, except a very small portion, which became a rapidly extending ulcer, is a common though singular occurrence. The disease having commenced without any exciting cause, may perhaps be considered as one arising from constitutional causes, and therefore not likely to have been permanently cured by the operation.

Case 2.—In the soft parts surrounding the lower part of the right nipple, there is a very deep livid ulceration, about the size of a crown piece, from which there extends a sinus burrowing under the skin, which is in a hard and puckered condition. All the neighbouring integuments, and the whole glands of the breast, are much swollen, and very indurated and knobby, and the upper portion of the arm and shoulder, as in the preceding case, are swelled and singularly painful. No glands in the axilla or under the clavicle, can be found to be enlarged or hard, but the loose cellular membrane, which lies on the serratus muscle, and between the latissimus dorsi and pectoral muscles, has been converted into a thick solid substance. The mammary gland itself is evidently in a very diseased state, and adheres strongly to the ribs, being immoveably fixed. She suffers constant and very severe lancinating pain; her general health is greatly impaired; she is emaciated, has frequent sweats, and her countenance having that peculiar expression which was so observable in the former instance: of late she has been attacked with pain and dyspnœa in the chest, to a severe degree. The disease commenced five years ago, in the form of a hard tumour, situated in the centre of the mammary gland, which appeared soon after the receipt of a blow in that region; this slowly increased, the progress of enlargement being marked with a corresponding augmentation in the puckering of the skin: ulceration at length took place three months ago.

This case, though apparently one of accidental development, and not arising from constitutional disease, is evidently now beyond the reach of operation; although if taken in time, it might probably have been benefited by surgical interference. It appears wonderful that no disease of the axillary glands should have ensued from the long continuance of the cancer, when the cellular membrane had become affected from its continuity.

The severity of the pain in these two cases has been greatly alleviated, and the surrounding inflammation subdued, by the frequent application of a few leeches, and the use of gentle aperient medicines, and of a mild and low diet: no other means have been adopted.

CASE OF CANCER OF THE SKIN.

Mrs. B., ætat. 82. In the integuments of the lower eyelid of the right eye there is an irregularly formed ulcer, extending from the inner canthus, over the orbitar process of the malar bone as far as the temple. The inferior palpebra has nearly disappeared, and the lower and anterior part of the eye-ball has thus become completely exposed; the superior portion of the malar bone is also bare, and apparently in an unhealthy condition; at the outer angle of the eye the cancerous ulceration has proceeded internally to a considerable depth, thus forming a cavity between the eye-ball and its bony socket; the edges of the sore are very ragged and undermined; the eye itself is sound, but from the destruction of its appendages she is unable to use it. From the whole of this ulceration there is a copious discharge of a thin, acrid, and offensive sanies, frequently mixed with blood. She experiences severe, constant, lancinating pains in the neighbourhood of the disease, and likewise complains of a distressing sense of confusion in the head.

The disease commenced twenty years ago, in the form of a pimple, situated in the skin, at the root of the lower eyelid; this in the course of time became an ulcer, which continued for many years stationary, being generally covered with a scab. Six years since the ulceration began to extend, and has proceeded with great rapidity.—From the advanced age of the patient, and indeed the great extent of the disease, no operation by the knife was practicable, palliative remedies only have been employed. As the general health of the woman is pretty good, and no absorbent glands are diseased, it is probable that she may survive a considerable time.

The following rare case of carcinoma of the mucous membrane of the labium and nympha occurred in Mr. Wardrop's private practice, but we have seen the preparation of the disease, which is now in the Museum of the Hospital:—

——— about 50 years of age, of dark and sallow complexion. The mucous membrane of the right nympha and labium is extensively diseased; it is generally inflamed, and in its centre there is a large irregular-shaped ulcer, extending deep into the cellular structure of the labium, with the mucous lining around it in a very indurated state. The ulceration extends upwards nearly to the clitoris, and backwards to within a short way of the commencement of the vagina; the ulcer continually pours forth a very fœtid and acrimonious discharge, which excoriates the surrounding skin. From this disease she suffers most excruciating pains, which, from their constancy and severity, have rendered life almost insupportable; her nights are passed without sleep, and her general health is rapidly declining. The disease commenced several years ago. Every variety of treatment has been tried without effect.

In this case Mr. Wardrop removed the whole of the labium, and allowed the wound to granulate. This has now nearly healed, and the patient has thus obtained a complete cure.

CASE OF CANCER OF PENIS.

——— ætat. 57, sent to the Hospital by Dr. Titley. In the extremity of his penis, which is now not above two inches and a half in length, there is a deep fungous ulcer, with everted and very ragged edges; the granulations are large and of a florid colour, and appear to be extremely irritable. The ulceration is situated, not only in the corpora cavernosa, but also in the integuments of the penis and spongy body. The orifice of the urethra is very uneven. The disease does not extend far, but is confined entirely to very circumscribed limits, as neither induration nor swelling can be traced beyond the edges of the ulceration. None of the glands in the groin or thigh appear to be in the slightest degree affected.

From this disease he experiences much pain of a lancinating character, extending upwards in the course of the spermatic vessels. The granulations bleed when rubbed or touched incautiously. States that fifteen years ago he had an apoplectic stroke, which was followed by paralysis of the right side of the body, which has continued since, and from the effect of which his intellectual powers have been much blunted; that two years since a small watery excrescence formed on the anterior part of the glans penis, which speedily degenerated into a foul ulcer, which continued gradually to extend, eating away a large portion of the yard till eighteen months ago, when the anterior part of the penis was removed. The wound contracted but never healed, and it was soon after attacked with ulceration in every respect similar to the original disease, which has gradually advanced till it has now nearly reached the root of the penis. As no diseased glands existed in the groin, and as the spermatic chord, testicles, and other contiguous parts, were in a healthy state, Mr. Wardrop thought it advisable to give the poor man the chance of a cure, and accordingly performed the following

Operation.

A piece of wet roller was first applied tightly to the root of the penis, with the view of preventing the retraction of the corpus cavernosum, and Mr. Wardrop then holding the diseased portion in his left hand, and stretching the penis, divided it through at one incision, as near as possible to the pubes. Notwithstanding the application of the firm bandage, we observed that the corpus cavernosum retracted very perceptibly;

no difficulty was, however, found in securing the dorsal artery, that of the corpus cavernosum, and a large branch coming from the septum of the penis, which bled rather profusely. The wound was then dressed in the usual light way, with a simple pledget of lint. Next morning we found that there had been a good deal of hæmorrhage on the previous evening, which had rendered it necessary to tie another small artery; but the patient was entirely free from pain or any constitutional disturbance. The wound now appears to be healing, a circumstance which leads to the confident hope of a complete recovery; but that event, considering the history of the patient, cannot be considered as altogether certain.

This case we conceive to be remarkable on several accounts; first, as showing the recurrence of the cancerous ulceration in a wound of sound parts, and where we have no reason to suppose the constitution at all affected; and secondly, it exhibits another instance of how long open carcimoma can continue, and what ravages it can commit without being absorbed into the system, or attacking the lymphatic vessels or glands even in its vicinity.

CASE OF PARTIAL HYDROCELE.

Immediately previous to the amputation of the penis, Mr. Wardrop punctured a hydrocele, which having rather an unusual history, we are induced to notice. The patient, twenty-two years of age, had, for several years, laboured under a large hydrocele of the left testicle; two years ago, an attempt was made by Mr. Rose, in St. George's Hospital, to cure the disease by the operation of injection—an extremely violent inflammation of the testicle ensued, and the patient, after enduring protracted sufferings, left the hospital with the testis in a swollen state, being informed that *when* it regained its natural dimensions, a perfect cure would be produced. These hopes, however, proved fallacious, and, in a short time, he found himself in a worse state than ever. Two months ago, he had another *consultation* with Mr. Rose, when that gentleman proposed *pricking* him with the caustic—to this he would by no means agree, being determined not again willingly to undergo the rigors of such *inflammatory* treatment, and, accordingly, soon after presented himself at this Hospital. On examination, the testicle was found to be considerably swollen, and, in the tunica vaginalis, was contained apparently about three ounces of fluid, which afforded a sense of fluctuation. The swelling produced by it was transparent, but it had not the usual pyramidal form of hydrocele, the fluid being apparently confined in two cavities.

Mr. Wardrop, who never in any case performed the radical cure for hydrocele without having, in a previous operation, evacuated the fluid, and examined the state of the gland, opened the tunica vaginalis at its lower part; only two drachms of colourless serum escaped. The nature of the case now became evident. By the severe operation the poor man had formerly undergone, partial adhesions of the tunics of the testicle had taken place, but the vaginal cavity had not been obliterated, and thus, on its reaccumulation, the fluid was confined in several distinct cavities. The remaining portion of the serum, to the amount of an ounce and a half, was discharged two days afterwards by Mr. Duncan.

CLINICAL INSTRUCTION.

To the Editor of THE LANCET.

> "Much has been done, but more remains to do;
> "Their galleys burn, why not their cities too?"

SIR,—You would be devoid of that noble feeling inherent in man, which results from a consciousness of having done good, could you read the above quotation without your bosom being agitated by the most pleasurable and satisfactory sensations; for without giving you more credit for your labours than is due, I may safely assert, that to no man living are we, as a body, so much indebted as to the Editor of THE LANCET. *Sed hæc hactenus*, as Dr. Blundell says. The Borough Hospitals are now (thanks to your strenuous and unremitting exertions) the best regulated in London; but there still remains an evil in regard to St. Thomas's, which calls loudly for redress. I allude to the practice which all the surgeons here persist in, of going round the wards on the *same day*; thus depriving us of two-thirds of the benefit which ought to accrue from the Institution. The indefatigables may certainly contrive to trot round with Mr. Tyrrell, and afterwards with Mr. Green; but Mr. Travers manages to make his peregrinations (it is said purposely) at two o'clock, when we are all engaged at the anatomical lecture. Now, I cannot believe that Mr. Travers, whose urbanity, splendid attainments, and communicativeness are admitted by all, will intentionally throw an insurmountable obstacle in our way; and I entreat him, in the name of the Borough Students, to make his arrangements compatible with his attendance at the Hospital at a more convenient hour.—Trusting he will not consider it derogatory to his dignity to attend to our request, I remain,

Your obedient humble Servant,

A BOROUGH STUDENT.

Borough, October 14th, 1827.

THE LANCET.

London, Saturday, October 20, 1827.

THERE is no portion of the law of England which reflects deeper disgrace on her legislature, than the parliamentary enactments relating to the government of MAD-HOUSES, and we heartily congratulate the profession and the public on the probability of their speedy repeal. Had those laws been intended to render insanity incurable—to extinguish the liberty of the subject—to furnish instruments wherewith a villain might satiate his revengeful appetite in security—to prevent inquiry into cerebral pathology—to dissipate every rational principle in the treatment—to encourage the cupidity of unprincipled relatives—to place at the disposal of the magistracy a most dangerous and unconstitutional power—to place an equally obnoxious power in the hands of a single medical practitioner—to add incalculably to the horrors of the afflicted—to augment a thousand-fold the exciting causes of the disease—and to render this deplorable malady a valuable article of trade to unprofessional, unprincipled and heartless speculators: they could not have been framed in any manner better calculated to produce such results. In no one respect are those laws founded on sound principles—they are radically, systematically defective. It really would seem that they had been adopted by a portion of that description of persons, for whose benefit they were intended. When the blind lead the blind, we know the result.

The evidence contained in the "Report," published by the select committee appointed by Parliament to inquire into the state of the pauper lunatics in the county of Middlesex, has produced an intense feeling of painful interest. Few were prepared to believe that such atrocious practices existed as are spoken of in that document, although we believe more remains behind the curtain than has been exhibited. Enough, however, has been disclosed to satisfy the public that the establishment of a COUNTY HOSPITAL, for the exclusive reception of INSANE PAUPERS, is imperiously required in the vicinity of the metropolis. The advantages resulting from such an institution, if properly regulated, would be indescribable; and we hope that the magistrates, at their annual meeting, on the 1st of the ensuing month, will show that they are not deaf to the voice of the public and of science, or insensible to the piteous cries of their insane poor.

If such an institution were founded, and thrown open GRATUITOUSLY, to all medical students (a regulation that ought unquestionably to be adopted,) the entire kingdom would, by that means, participate in its benefits, arising from the increased knowledge of her medical practitioners, in by far the most important, though the most uncultivated, of human diseases. It is deplorable to observe, in the report of the committee, the treatment to which the unhappy sufferers are subjected — distracted in mind and tortured in body —chained down naked to beastly cribs, from Saturdays till Mondays, without being once removed, with no other sounds to greet the ear, than the incoherent and horrible yellings of their maniacal companions,—with no other view to meet the eye than the bare walls of a madman's den. Who can contemplate such a scene without feelings of horror! Is it to be expected that *cures* can be effected in such a frightful hole—*cures*, indeed! who are the attendants?—unprofessional idiots, if we have read the evidence correctly—porters, uneducated servants, any one who happens to be in the way. In a word, the patients are not classed, but placed together like a herd of swine. Taken altogether, it is a most infamous system, and casts a deep stain on the humane character of the influential people of this country. The public, however, are much indebted to Lord ROBERT SEYMOUR, Mr. ROBERT BROWN, and Mr. GARRETT DILLON, for having, by their indefatigable exertions, succeeded in procuring the appointment of the parliamentary committee, which we can already perceive will be followed by very important results.

We shall return to the subject, and give some extracts from the REPORT.

ONE of our Correspondents, who subscribes himself "A Physician," without assuming any of the designations which distinguish the different classes of belligerents, complains of our inveterate hostility to a department of the profession whose interests, in common with those of every other department, we have uniformly supported; while another Correspondent, under the signature of "A Friend," reproaches us with having praised the conduct of an individual, who has been on many occasions the object of our unsparing censure. The Physician's letter we shall insert, without abridgment; the other communication we do not insert, because, although parts of it are not undeserving of notice, it is not in all respects fit to meet the public eye. The charge of inconsistency is founded upon the circumstance of our having last week mentioned Mr. GREEN as one who had honourably distinguished himself from most other Hospital teachers, by his endeavours to supply the want of a regular system of clinical instruction in St. Thomas's Hospital. "Whence," asks our Correspondent, "this sudden approbation of the conduct of Mr. Green? Whence this change of sentiments with regard to a man whom you have hitherto pursued with unrelenting hostility?" We will answer both these questions; and first, that which founded upon the supposition of our entertaining a personal hostility to Mr. Green. We entirely disclaim all private feelings of animosity towards that gentleman; whenever we have opposed him, we have opposed him upon public grounds; and if the grounds of our opposition be removed, our hostility must cease with them.

With respect to the cause of our approbation, Mr. GREEN's efforts to introduce something like a system of clinical instruction, in St. Thomas's Hospital, are matters of notoriety; and our attention was last week more particularly attracted to these efforts, by the circumstance of his having offered *two gold medals*, one to be awarded to the student of St. Thomas's Hospital, who should, at the end of the year, produce the best set of *clinical reports;* and another to the student who should produce the best set of *anatomical preparations*. Knowing these facts, we should have ill-deserved that confidence which the readers of this Journal impose on our impartiality, if we had hesitated to except Mr. GREEN from the censure which we have passed on most other hospital teachers, out of resentment for the part which that gentleman has on former occasions taken against ourselves. Of Mr. GREEN's attempts to suppress the publication of hospital reports, and to establish a system of "Hole and Corner surgery" within the walls of St. Thomas's Hospital, our opinions of course remain unaltered; but we will never suffer our opinions of his past errors to influence our judgment when it may be our duty to notice his present or future claims to approbation. We have never quoted individual favour, nor sought to avert individual resentment; our motives and our ends have been strictly identified with the interests of the profession and of the public. It is the honest independence of this Journal which constitutes its real strength; the power which we possess is founded on a legitimate basis—the basis of public opinion; and our enemies, as well as our friends, may rest assured that the influence which has been fairly and honourably obtained, shall be fairly and honourably exercised. *Amicitiæ sempiternæ, inimicitiæ placabiles;* let our friendships, if possible, be perpetual, but at any rate let our hostilies be open to conciliation. And now for the letter of "A Physician":—

To the Editor of THE LANCET.

"If the contest should terminate like that of the Kilkenny cats, which fought till they left nothing on the field of battle but their respective tails; if, in short, the *pure* "Fellows," the *pure* "Licentiates," the *pure* "Independents," should finish the combat by destroying one another; we know not that the public would have any great cause to regret their annihilation."—LANCET, No. 214. p. 4.

SIR,—Your Journal is too widely circulated, too influential, to suffer such paragraphs as the foregoing to pass unnoticed; and I trust that the spirit of free discussion which animates you, will ensure equal currency to a few comments, by one of that body to which your oblique censure applies.

Whence the hostility to physicians, which this gratuitous slight, this unmitigated reprehension displays? By what misdeeds have they merited such unsparing severity? What offences have been proved against them, to authorise the stigma thus attempted to be cast on them? And what good end is likely to be served by the tone of obloquy and reviling here so wantonly indulged in?

On each of these points I shall offer a few remarks; and I trust that in doing so, I shall not be betrayed by the provocation given, into any departure from that calmness and urbanity, by which controversy, on all subjects of public interests, should ever be characterised. But first I must say a few words on the source whence this condemnation of all physicians emanates.

Your Journal, Sir, addresses the profession, and you not unfrequently claim the merit of protecting its rights and interests. This character gives to your animadversions a power of wounding, which, as the advocate of a party, you could not possess. It becomes necessary then to scrutinise the scope of your guardianship, and to understand the sense in which the term profession is employed by you. I fear, Sir, that you and I use it in a very different sense. I have been accustomed to consider it as a comprehensive term, embracing all the branches by which professional offices are administered: you appear to regard it as confined to that class of practitioners, who are the immediate objects of your favour; as if all others were unworthy of being classed under it. This is no hasty surmise, but a conclusion derived from careful attention to the tenor of your customary remarks. The surgeons you vilify,—the apothecaries you ridicule,—the physicians you consign to annihilation. By whom, then, is the profession to be supported, or of whom are we to consider it as consisting?—None remain save those members of the College of Surgeons, who act as general practitioners. Of this body alone, then, are you the champion, and it is well that this should be understood, in order that such partial advocacy may not mislead. But are we prepared, Sir, to admit this identification? Are the other classes so worthless, as to be wholly excluded the professional pale? Are we all sunk so low as to make no resistance to this overweening pretension? I trust not; and as one individual, I enter my protest against the disfranchisement to which physicians, surgeons, and apothecaries, are thus consigned. To your defence of the surgeon-apothecaries, I have no objection; but I do object to this defence being carried on under the assumed garb of a guardian of the profession.

To return to the points which I profess to discuss.—Whence the hostility to the physicians which the paragraph prefixed to this letter displays? I can conceive no source but that error to which partial advocacy is prone; a belief that by depressing others we elevate ourselves. As the advocate of the general practitioners, it is natural that you should find the physicians in the way, and wish to remove them. I accuse you not, Sir, of any unprincipled desire to get rid of troublesome rivals; and I can in charity believe that you have dwelt so long on the merits of your favourite practitioner, as to be satisfied that he would worthily, and beneficially to the public, replace the physician. This, however, is a point on which happily the public have a voice, and I have little apprehension of their adopting your predilection. I, Sir, shall not imitate your policy by undervaluing the general practitioners; but while I freely admit their merits and usefulness, I venture to express my own conviction, that with all their qualifications they are unfitted to fill the chasm which your contemplated annihilation of the physicians would create.

By what misdeeds have the physicians merited the severity shown? What offences have been proved against them?—To these questions *you*, Sir, are called on to reply, for as yet you have not supplied us with an answer.

What good end is likely to be answered by assailing the physicians with obloquy and reviling?—It would be difficult to show while it is easy to trace both the injustice and injury of this vituperative warfare. It is unjust to decry the physicians, without specifying the demerits with which, by implication, they are charged,—to pronounce condemnation without giving them the benefit of fair trial. It is injurious to mar, by indirect blame and insidious sarcasm, the endeavours of any branch of the profession to rescue itself from misrule and oppression. The whole profession needs reform, and requires a legal organisation, which shall leave its several branches free to discharge their respective functions, with advantage to the public, and without collision among each other. The physician's department calls for this more imperatively than any other, because the legal government under which it exists is more antiquated, more inefficient, and the powers conferred by it more signally abused. In seeking redress of grievances most onerous and too long endured, the physicians have enough to contend against, without encountering the enmity of those who ought rather to foster their endeavours. My object, however, Sir, in this address, is not to deprecate your hostility, but to request that if the paragraph which has called forth these remarks be not a hasty and inconsiderate effusion; if it is to be regarded as denoting the feelings which you entertain towards the physicians, and the course which you mean to pursue in your editorial labours, you will manfully declare yourself their enemy, and avow the hostility against which they have to guard. I, Sir, am no rigid censor of casual expressions, uttered inadvertently or under excited feeling. A flippant remark, even though tinctured with malevolence, I could overlook, and freely forgive; but such undisguised and inveterate enmity as your late paragraph evinces, could not be passed over without culpable dereliction of the duty which I owe both to my own department and to the profession.

I have thus given you my sentiments on the subject, in which I trust the whole body of oppressed physicians will participate. I have pointed out an aggression on your part unprovoked, and unsustained by any evidence of delinquency to warrant the indiscriminate condemnation which you pronounce. I leave it to yourself, either to redeem the trespass, or openly to avow an enmity, against which the physicians may be on their guard, and from which they will then know how to defend themselves.

I am, Sir, &c. &c.

A Physician.

Oct. 7th, 1827.

We cannot compliment the author on either his "urbanity," or "calmness," and still less on his interpretation of the extract from our preface. In the third paragraph he proceeds to "say a few words on the source whence this condemnation of all physicians emanates," and really we should like to be informed whence this condemnation of ALL physicians is to be found; certainly not in the above quotation. Is not the censure, if worthy of being called such, directed exclusively against the *pure* fellows, licentiates, and independents? yet the author has disingenuously omitted the adjective throughout the whole of his letter. Where then is the censure on ALL physicians—where is the hostility displayed? To condemn ALL physicians, when we know that some of them are the brightest ornaments of the profession, is a notion that we could not have entertained even for a moment; and, on reflection, the writer must perceive that his accusation against us is not only unfounded but ludicrous. Physicians belonging to every party have been treated with great fairness in the pages of this Journal; on no occasion have we refused insertion to their communications, when they were calculated to provoke discussion, or elicit truth. In common charity, we might well be spared a charge of partiality from one of the "Independents," in favour of whose just claims, as regards the college, we have published some two or three scores of letters. Their "circular" also we inserted without comment; a document in the highest degree insulting to the general practitioner. Anxious that every subject connected with medical legislation should be strictly investigated, with a view to learn the best principles of government, we have repeatedly given publicity to opinions directly opposed to our own—the return is a charge of partiality.

If we mistake not, the majority of physicians feel they are on slippery ground—the unadorned title of M.D. has lost its charms with the public; something more is required than the mere sound of "Doctor," and we are persuaded that physicians, simply as such, will continue to sink in public estimation, until their knowledge of anatomy, pathology, and surgery approximates more nearly to the information possessed on these subjects by the surgeon. With regard to both *pure* physicians and *pure* surgeons, the conceited and empty sticklers for exclusive rights, we heartily despise them. SOLOMON says, "There is a generation that are *pure* in *their own eyes*, and yet are not washed from their *filthiness*." The family, therefore is evidently of ancient origin, and will not be extinct probably for another quarter of a century. We shall return to the subjects referred to in this letter, but fear that the questions will not be answered to the author's satisfaction. It is really surprising that a brace of cats' tails should have caused such a fuss; but as suspicion is confirmation to the jealous, so is fear fatal to the weak; and when men are conscious that their reputation stands upon an unsubstantial basis, they are morbidly alive to every circumstance that threatens to expose the slender materials by which it is supported.

During our long acquaintance with the west end, we have never witnessed the winter campaign open under such gloomy appearances as in the present season, at least for those who were wont to be considered the demi-gods of the profession. The surface of the earth seems entirely changed. The low arts which formerly were practised, *ad captandum vulgus*, have now ceased to have any effect; and those riotous feastings which used to be held, on similar occasions, by the lecturers of a certain ancient school, for the purpose of entrapping the raw victims, have now ceased to be attended by the dupes of avarice. Pupils, as well as patients, have in this quarter of the metropolis become singularly scarce; and the *great dons* are loudly complaining that both their pockets and their benches are empty.

What can these portentous changes mean? Or how can they be accounted for? Why, on very simple grounds: first, the public has been made acquainted with the shameful practices which prevail in the large hospitals, and which have hitherto been employed as mere tools for pushing on the fortunes of their unskilful medical officers;—and secondly, the pupils have at length become convinced that they can neither see the practice of medicine or surgery conducted in these establish men: nor are there any lecturers connected with them of sufficient talents or acquirements to enable them to instruct the minds of youth. The pupils have, therefore, winged their course to more hospitable shores; and we have been well informed, that a vast proportion of those who a few years ago would have entered at some one of the west end schools, are now to be found busily cultivating their profession in Dublin or Paris; while others have dispersed themselves among the St. Bartholomew's or Borough schools.

The Windmill-street Seminary, which, during the reigns of Hunter, Cruikshank, Wilson, and Bell, enjoyed a high, and, we sincerely believe, a very deserved reputation, is now fast crumbling into decay; We hope that the fall of this vast fortress will teach the rising generation that talents can neither be bought or sold. We strongly suspect that Messrs. Mayo and Brodie will find to their cost, that they have purchased no great bargain from Mr. Bell, who seems to be as expert in the art of selling schools, as he is in the manufacture and trade of "*nece spicimins*."

THE address of Mr. SKEY on commencing the DEMONSTRATIONS at St. Bartholomew's on Tuesday last, will be read with interest. Of the nature of the squabble between Mr. WORMALD and Mr. SKEY we are uninformed, and therefore shall offer no opinion respecting it. Mr. Skey observes, "Had I obtained from Mr. Abernethy that justice I had a right to demand at his hands, all comment from me here would have been unnecessary." Of course we cannot tell what sort of justice Mr. SKEY sought to obtain from Mr. ABERNETHY, but we are by no means surprised that his application was unsuccessful. Although Mr. ABERNETHY has again and again assured Mr. SKEY that he never spoke of him in a slighting manner, yet Mr. SKEY says, "That Mr. ABERNETHY has spoken of me in terms of disparagement, no one can doubt." We think so too; but Mr. Abernethy tells us, that when he called Mr. SKEY a FOOL, it was merely in allusion to the "COMPARATIVE OPULENCE of Mr. Wormald's family." Disgraceful shuffling! We are pleased with the manly course adopted by Mr. Skey in coming forward, and speaking up so boldly in his own vindication, and sincerely wish him success.

HOSPITAL OF SURGERY.

A BENEVOLENT and generous individual has given, within these few days, ONE THOUSAND FIVE HUNDRED pounds to the committee of this hospital, towards a fund for erecting a more commodious building. The name of this benefactor is, by his own desire, for the present suppressed. The new hospital will be opened in the neighbourhood of Charing-cross, where the King, with his usual and characteristic munificence, has given a spot of ground on which it is to be erected. A tenth part of the patients who apply for relief, cannot be accommodated at the present establishment.

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William Day, Esq., Isleworth	1	0	0
Mr. Bryant Donkin, 80, Great Surrey-street	1	0	0

Outlines of Medico-Chirurgical Science, containing Remarks on Medical Education, and Illustrations of the application of Anatomy, Physiology, and Pathology, to the principal practical points in Medicine and Surgery. With Coloured Plates. By THOMAS TURNER, M.R.C.S., Lectuter on Anatomy, &c. Second edition, 8vo. pp. 371. Underwoods, London.

THE first edition of this work appeared towards the close of 1824, and has met, as we then anticipated, with a favourable reception from the profession. The clear but concise manner in which the human body is described, and the physiological considerations blended with this description, render the first part of the work extremely instructive to those who are commencing their professional career. Whilst the second division of the work, which treats of the relative position of the parts in many regions of the body, and their connexion with the principal practical points in medicine and surgery, can scarcely be less acceptable to those more advanced in their studies, or engaged in active practice. This part of the subject afforded ample ground for the display of professional knowledge. The field was unoccupied; no one in this country had hitherto undertaken to give an account of all the regions of the body, and to point out at the same time the influence which their organisation exercises on the development of disease, as well as their several relations in connexion with the performance of surgical operations. Parts of the body, as the head and neck, groin, and perineum, have been studied on this plan, but it had not been extended to the consideration of the whole frame. For an undertaking of this kind, a person ought to possess a more than common knowledge of the region which he has to describe, and be able to point out, as by a kind of induction, the influence which the structure of a part is capable of exercising on its diseases. Anatomical knowledge, therefore, alone, is not sufficient for the purpose, it must be combined with an extensive acquaintance with disease, and the power of tracing disease to its cause.

This mode of studying anatomy renders it absolutely necessary to subdivide the body into different parts, each of which must be fully considered before proceeding to another. Mr. Turner divided the body into eleven, viz. the cranium, face, eye, nose, mouth, spine, neck, thorax, abdomen, upper and lower extremities. He first gives the anatomy of the part, and then mentions the principal practical points connected with it. The anatomical description of some of the divisions of the body, fall short of what we expected to find them in this edition. In the neck, for instance, no account whatever is given of the superficial or deep fascia, no mention consequently made of the structures which are enveloped by them, or the various effects which they exercise on the development and treatment of abscesses, and on the important office which the deep fascia performs during the time of inspiration. The fasciæ concerned in inguinal and crural hernia, are, on the contrary, minutely described, and the different kinds of hernia well explained. The anatomy of inguinal hernia is worthy of the student's attentive perusal.

"If an incision be made from about three inches below the umbilicus, to the anterior superior spinous process of the ilium; and another from the commencement of this incision, perpendicularly to the symphysis pubis; we include a portion of integument, under which are the parts concerned in inguinal and crural herniæ. To display these parts, another incision in the integument is required, from the centre of the transverse one, directly downwards, to about three inches below the groin; two flaps of skin will thus be formed, and these flaps are to be carefully dissected from the condensed layer of cellular membrane underneath, and reflected, the inner towards the linea alba, and symphysis pubis; the outer towards the spine of the ilium, and the outer part of the thigh. The condensed membrane, which is now seen covering the aponeurosis of the external oblique muscle, Poupart's ligament, the spermatic cord, after emerging from the ring, and the upper part of the thigh, is called the fascia superficialis. It is a structure not confined to the groin; but here, and in other portions of the body, it is thicker, more membranous, and deserving of particular notice, from its relation to herniæ, and suppurating buboes.

"The fascia superficialis is to be separated from the aponeurosis which it covers, and reflected in a similar way to the skin; this will expose the glistening tendon, its termination in Poupart's ligament, the upper portion of the fascia lata of the thigh, and the inguinal glands; and the student will easily understand, after observing the situation of the superficial fascia above the inguinal glands, why it is that abscesses in the groin are long in bursting; for the fascia thickens from pressure, and offers great resistance; and why, if allowed to open spontaneously, a sinuous ulcer is often left, which is troublesome to heal. The common skin, and fascia just described, are then the superficial parts of the inguinal region.

"The portion of aponeurosis, which stretches from the superior spinous process of the ilium to the symphysis pubis, is next to be examined. It is called Poupart's ligament; and, at its pubic extremity, there is an opening formed by a separation of the tendinous fibres, and named the external abdominal ring, in contradistinction to another aperture, by and by to be described, which is the internal ring. If the student expected to find the external abdominal ring a distinct opening, he will, in this stage of the dissection, perceive his error. It is occupied by the spermatic cord and cellular membrane, over which is a thin delicate fascia, which is called the fascia of the cord, and conceals the site of the ring; on raising this, and breaking down with the handle of his scalpel the cellular connexions of the cord, he will be able to observe the ring, which, however, is not circular, as its name would seem to imply, but rather of an elliptical form.

"The aponeurosis of the external oblique muscle is now to be detached from the internal oblique, which is under it, and turned towards the thigh. The internal oblique is then to be detached from the transversalis, which is beneath, and these two muscles observed in their relation to the spermatic cord in its passage from the external ring, to its disappearance at the groin. The student is then to replace the internal oblique and transversalis, and to leave the aponeurosis of the external oblique reflected towards the thigh. By taking hold of the spermatic cord, and gently drawing it, he will see its course behind Poupart's ligament; and will observe, that it is covered with a few pale fibres, called the cremaster muscle, which are derived from the oblique internus, and transversalis muscles.

"If now the internal oblique and transversalis be carefully cut, and pushed upwards with the handle of the knife, a thin fascia will be seen lining the posterior surface of the latter muscle; it is the fascia transversalis of Cooper. Below, it is firmly attached to Poupart's ligament, and the pubis; and passing upwards, we find it between the posterior surface of the transversalis, and the peritoneum. In this fascia is the internal abdominal ring, by which the cord leaves the abdomen. The tendons of the internal oblique, and transversalis, are not then perforated for the passage of the cord, for the opening is in the fascia above mentioned, and the tendons of these muscles form, as it were, an arch over the cord. In tracing the cord, the student will observe it, in what is called the inguinal canal, viz.—that space between the two rings; that it is here situated behind the aponeurosis of the external oblique; and that it passes under the edges of the internal oblique, and transversalis muscles. At the internal abdominal ring, (which is not a well defined opening, without breaking down the cellular membrane about it,) the spermatic cord is formed; and behind the ring is the peritoneum, which lines the abdominal cavity; it is important to bear this in mind, as it explains the nature of the hernial sac.

"In the dissection, the student must observe the epigastric artery. It arises from the external iliac, and passes upwards and inwards towards the rectus muscle; it is situated a little on the inner side of the internal ring, and between the fascia transversalis and peritoneum."

The practical observations contained in this work are very instructive, and display, on the part of the author, an extensive knowledge of the subjects which he has handled. The diagrams will be found very useful, particularly that of the peritoneum, which is used by Dr. Monro, of Edinburgh, in his class-room, and in many of the dissecting-rooms of this metropolis.

LECTURES ON COMPARATIVE ANATOMY.

On Thursday last, Mr. John South gave a lecture at Thomas's Hospital, introductory to a course on Comparative Anatomy. It is a fact, although we blush to mention it, that these are the only lectures delivered in London on this most important subject. Viewing comparative anatomy as a study subservient to our physical knowledge of man—as a means whereby the functions or uses of parts are learned, either from the more fully developed or less complex structure of the organs of animals, it is a study of the highest importance to medical students. It might easily be shown, that our present knowledge of many of the most important functions of the human body has been derived from an observance of similar functions in animals; but we need only refer to John Hunter's physiological facts in support of this observation. But even if the desire of an intimate acquaintance with physiology, and thus of consequence, with pathology, were not sufficient incentives to prosecute the study of comparative anatomy, it might be found in the pleasure afforded to a philosophic mind, in the contemplation of the laws of Nature—of observing and tracing the common *vinculum*, by which an almost infinite variety of living beings are held together. Whether we commence our studies with the more perfectly organised animals akin to man, and thus descend the scale, or whether we begin with those beings endued with the lowest share of vitality, and but one degree removed from the vegetable kingdom, there is matter equally for astonishment and admiration—in the zoophyte as well as in man. This study is surely as agreeable, and we may venture to say, as useful, as botany or chemistry; and now that a Zoological Society is established, where an opportunity will be afforded to become practically acquainted even with the more rare animals of the creation, we do hope and expect that an impulse will be given to this most delightful branch of study, that it will form a prominent part in the education of every medical student, and that we shall no longer be compelled to look to foreigners for information on these subjects.

Of Mr. South's merits as a lecturer on

comparative anatomy, we are not fully prepared to speak; we know that he has bestowed much patient investigation and labour in the acquirement of information connected with the subject; and if we may judge from the two lectures already given, and some that we heard last year, we should augur favourably of his capabilities. Perhaps a greater share of *vivacity* in the descriptive department of the course, would render it more attractive.

CLINICAL SURGICAL LECTURES.

Mr. Tyrrell commenced a course of clinical lectures, in the male operating theatre, on Saturday last. In this first or introductory lecture, Mr. Tyrrell confined himself to an explanation of the plan he intended to pursue, directions to the student as to the best method of taking notes, and attending to the surgical practice of the hospital. Mr. Tyrrell avowed his strict determination to preserve order on the occasion of his performing operations; stating that he would invariably refuse to operate until those persons who usually crowded into the ring (appropriated to the surgeons and a few immediate assistants,) had retired to their proper situations. [We are heartily glad to hear this resolution from Mr. Tyrrell, and we have no doubt that he will be fully supported by the majority of the pupils, inasmuch as the persons who crowd into the ring, and intercept a view of the operation, are, for the most part, interlopers,—*hospital jackalls*, et id omne genus. The conduct observed during the performance of operations last season, was as stated in a letter from a Borough Student, and published a fortnight since—"*shameful*;" and we have, on several occasions, in common with many of the students, retired in disgust from the *bear-garden* scene.]

Mr. Tyrrell announced his intention of continuing his Clinical Lectures on Fridays, from twelve to one. Mr. Green purposes to give Clinical Lectures on Saturdays, between the same hours.

THE MEDICAL PROVIDENT INSTITUTION OF SCOTLAND.

The Medical Provident Institution of Scotland held its first annual general meeting, as briefly stated in our last, in the Physicians' Hall, on Friday the 18th inst.—Dr. Moncrieff, chairman, read a Report of the directors, which was unanimously approved; and which, together with the Report laid before the first General Meeting, (also read for the sake of information) detailed the objects, nature, progress, and prospects of the Institution. Thanks were then voted to the Chairman and Directors for their past services—and a new board of management for the ensuing year was formed—Dr. Moncrieff and Dr. Poole being re-elected chairman and deputy chairman. Various letters, from gentlemen at a distance, who could not attend the meeting, expressed satisfaction at the establishment of the Institution, promising it their support, and offering such suggestions for its welfare as circumstances seemed to require.—Such encouragement was gratefully received by the meeting, and drew forth sundry corresponding remarks, especially from Dr. Thatcher, who spoke with much feeling and earnestness. Among other observations, he stated his opinion, that the merits and beneficial tendency of this excellent institution were but very imperfectly understood. He approved much of the Report which had been read, as most favourable on every point. It was true, that much hitherto had not been effected, but let it be remembered that the Society had in truth existed only a very few months. This was owing partly to the difficulties of the times, but more especially to the erroneous impression which existed, that it was an insurance on life, rather than a decided Provident Institution, principally intended to aid the medical practitioner, by the contribution of a very slender proportion of professional income, to receive many future advantages. Under the head of the first Table, the contributor derives, when incapacitated by sickness, or any of the casualties of human nature, an income which would relieve him from dependence on the benevolence of private individuals, or the *sympathy only* of any corporate body to which he might be attached; but by contributing to the society he would obtain a moderate competency as a right, not as a painful boon to his feelings. Under the head of the other Tables, obvious and decided advantages existed. He knew well, and there were, no doubt, many gentlemen present, who at this moment were aware of brother practitioners and their families, who would have been spared much pain and mental anxiety, if there had existed a provident and benevolent fund like this to apply to. He entreated, therefore, that both locally and generally, the value of the Institution should be disseminated by the most active exertions. It required only to be known to be duly appreciated.—*From the "Scotsman" of May* 23, 1827.

DEMONSTRATIONS AT ST. BARTHOLOMEW'S.

It having been announced that Mr. Skey would begin his *Anatomical Demonstrations* at St. Bartholomew's Hospital on Tuesday morning last, at nine o'clock, considerably before the hour, the theatre was filled in every corner, and on that Gentleman's making his appearance, he was received with long-continued and general applause. We heard a hiss only from one or two individuals. After several attempts to address the pupils, which attempts were rendered nugatory by the plaudits, he at length succeeded in obtaining a hearing, and addressed the class as follows:—

Gentlemen,—However strongly disinclined I may feel to introduce any subject in this theatre irrelevant to that which we are assembled to discuss, I should be wanting in self respect, and should betray culpable indifference to public opinion, to my own reputation, as well as to the kind reception I have met this morning, were I to pass without notice or comment imputations published against me by my opponent during the late election of an assistant surgeon to this Hospital. Were I disposed to follow the advice of the more prudent, probably I should, on appearing before you, have made no allusion to the past; but these considerate advisers have neither the power nor the inclination to form a just estimate of the nature and extent of the insult to which my feelings have been subjected.

Explanation is a duty I equally owe to myself and to you, and I shall exercise my own discretion in determining how far I may deem it right to introduce it, uninfluenced by any fear of offending one party, or any desire to gratify another. I have been too long an object of calumny in this place, to withhold from any feeling of delicacy, or to allow the fear of offence to the feelings of those around me, who have evinced especial indifference towards mine, to deter me from the fair avowal of my own sentiments, or the honest defence of my own character; and if Mr. Abernethy and a host of professors were seated before me, I should address to them the same language I shall address to you. If after explanation you can attach any thing like truth to these imputations, you may justly charge me with no inconsiderable degree of assurance in venturing to appear again before you in the character of a teacher. Had the charges been confined within the circle of this Hospital, I might have trusted for a refutation to the report of those by whom my character and qualifications are better known; but unfortunately, my name has been branded throughout the profession as an injury to the school, because certain persons happened to be interested in my exclusion.

Had I obtained from Mr. Abernethy that justice I had a right to demand at his hands, all comment from me here would have been unnecessary; but I am on this, as on a former occasion, left to fight my own battle. For some years the most ungenerous means have been resorted to, to affix a stigma of incompetency on my professional character; and to a professional man, what injury, let me ask, can be sustained more dangerous, than a successful attempt to brand him with a reproach of incompetency?

That Mr. Abernethy has spoken of me in terms of disparagement, no one can doubt; that he has used language, under impressions derived from others, and in moments of irritation, of which he has subsequently on various occasions expressed his regret, but without expecting that it would be registered for publication years afterwards, neither can there be any doubt; that this language has been carefully recorded by the hand of malice for an express purpose, is equally indisputable. The events of last year would probably have never strongly recurred to my mind, except to claim a feeling of pity for them whose hopes had been disappointed, had not the recent publication of this language excited in my own mind, and in that of every professional man with whom I am acquainted, the most unqualified feelings of disapprobation and disgust.

Gentlemen, Mr. Wormald, my co-apprentice, my junior, and my colleague, a candidate with myself for public honours, has made partial statements, has quoted intemperate and passionate expressions as deliberate opinions, has detailed and published conversations, private and confidential, for the honest purpose of blasting the reputation of an electioneering opponent.

In a letter, I might almost say a pamphlet, (detailing the history of his professional life,) which he circulated among the Governors, he has directed the particular attention of his readers to some observations published in a former Number of The Lancet, with which he provided each governor, to whom he sent his letter, because they were supposed to convey impressions unfavourable to my professional character. (*Disapprobation.*)

After expatiating largely on the important advantages which would accrue to the Hospital by his election—after doing ample justice to the "enthusiastic reception," and entire satisfaction which had attended on his essay here—our author proceeds to say, "he would not risk his reputation by pulling with me." Risk his reputation—what does this mean, for I cannot understand? Allowing for his sensitive apprehension of his reputation at a former time, he has shown little tenderness for it at the present; and I sincerely hope his recent conduct has relieved him from all anxiety on that head for the future. My opponent has taken on himself to state, that my demonstrations were a failure—is this true, or is it false? My reply to this charge is short:—

In the course of *one hour*, 145 out of 165 gentlemen, attending the demonstrations, signed a letter unsolicited and unknown to me, expressive of their complete satisfaction of the mode in which they had been delivered. Independent of the cordial expressions of approbation which reached me subsequently, from several of those who had previously been hostile to me.

After the election, on observing Mr. Wormald's name again associated with mine, I immediately wrote to Mr. Abernethy to appeal against his re-appointment—stating to him, that "I did not desire to retain the demonstrations alone, but that I would willingly join my exertions to those of any person with whom, consistently with the common feelings of right and wrong, I could allow my private and professional character to be associated." Without the permission of the medical gentlemen of this Hospital, I am not warranted in stating to you their opinions entertained and expressed to me of Mr. Wormald's conduct. It is sufficient for me to say, they were such as fully justified my application.

Mr. Wormald has stated, that "he cannot pull with me;" my dislike to this same "pulling" must be very obvious, nor can I perceive the justice of his expecting from me farther co-operation with him.

Gentlemen, I beg you will fully understand that I am still the aggrieved party, and not the aggressor; the gauntlet has been thrown *to* me, not *by* me; and I appeal to those older students now present when I say, that throughout the disputes and contentions of last and this year, I have acted on the defensive only, nor am I aware of having taken any advantage of the exposed machinations of my enemies. If I am asked, why I venture in this public theatre to discuss subjects unfavourable to tranquillity, my answer is plain—It is here, in my character of demonstrator, I have been attacked—it is in the same character I make my defence.

Justice has been refused me elsewhere, and no power on earth should have compelled me to commence another course in this theatre, without availing myself of this opportunity of reply—or to shrink from what I believe to be a duty I owe myself—by tacitly submitting to be degraded from the rank to which I am entitled in this Hospital, and in the profession.

Loud bursts of applause were repeatedly expressed during the delivery of this address.

CLINICAL INSTRUCTION.

To the Editor of THE LANCET.

SIR,—In a very recent Number of THE LANCET, I observe a communication to the Editor on the subject of clinical instruction, pointing out its vast importance to practical medicine and to the public health. The occasion of the letter has been, I think, some public notice relative to a clinical school forming at the Westminster Hospital, and the subscription is — Magrath, Camdentown. With the exception of the sneers at the College of Physicians, or rather at those venerated seats of learning from which the College draws her supplies of talent and erudition, there is nothing in that letter to which I do not entirely subscribe. As it is scarcely possible to overrate the value of professional skill to the sick, so it must be difficult to form too high an estimate of the utility of the most efficient of all means for its attainment, viz. clinical instruction. Your correspondent has accordingly by no means exaggerated its importance in placing it altogether in the foreground, and giving it precedence *longo post intervallo* of all other branches of medical education. In prosecution of the subject started by Mr. Magrath I have some remarks to offer, the insertion of which in your next Number will much oblige

A FRIEND TO THE LANCET.

Welbeck-street, Sept. 24, 1827.

In clinical instruction, as in other things, there are several methods of attaining the same object, different routes to the same end, of which some are better than others. 1st. In some schools the opportunity afforded to the student is that of observation merely, the pupil is but a spectator ; the patient and the professor, with their attendants and assistants, medical and menial, are the only performers. In schools on this plan the student observes at his ease and records at his leisure such phenomena as are reported to him, or as catch his own attention—on the causes of those changes he hears, perhaps, after the lapse of several days, a learned discourse, generally rather uninteresting (because more or less unintelligible) to tyros; very often highly intereresting and instructive to competent hearers. Such, in a few words, is the plan followed in the clinical schools of Scotland and Ireland. 2d. In other schools pupils have, in addition, the permission to observe morbid phenomena, and to listen daily to able ætiological and therapeutical discourses ; the further advantage of being, if not required, at least invited, to take charge of patients as historiographers of disease, and for that purpose to keep accurate notes of the symptoms and treatment. To these notes the professor frequently refers during the visit, or in the course of his lecture ; and the liability to such visitation must certainly materially increase the student's assiduity — such are the clinical shools of Paris. Every one acquainted with La Charité and l'Hotel Dieu know that Messrs. Cayol, Recamier, Chomel, &c. were much in the habit of exercising their pupils in the way alluded to. 3d. Other schools go still farther. In addition to presenting to the student's observation the phenomena of disease, and orally explaining to him the grounds of the prescriptions, diagnosis, prognosis, &c.; and in addition to requiring, rather than inviting, him to observe diligently and keep accurate records of cases, there is this further advantage—the pupil is charged with the treatment of diseases, the symptoms of which he must account for, the seat of which he must point out, and the remedies for which he must prescribe. Such is the plan adopted in several schools of Germany and Russia ; that for example is the method followed in one of the most recently founded, and most modern in construction of European clinical schools, viz. that of Heidelberg, vide Conradi's *Einrichtung der Klinik zu Heidelberg, &c.*; *Heidelberg*, 1820. A method not very dissimilar prevails at the various public and private obstetrical schools of England, Ireland, Scotland, France, &c. Students of midwifery are allowed to practise to a greater or less extent after having had some instruction. Now the comparative merits of these different plans are not difficult to determine. The business of the student of practical medicine is twofold ; he has to ascertain the laws of disease, and to learn the rules of treatment : in the former capacity he is but a spectator ; he can but observe and reflect : in the latter he must be an actor, since nothing but practice can confer dexterity. The practical knowledge, or in other words, the dexterity, alluded to, is not an acquaintance with or ready recollection of certain pickled maxims or golden rules of treatment ; but it is a familiarity with symptoms, measures, shifts, emergencies, contingencies, contrivances, &c. &c. which is to be acquired only in personal conflict with the difficulties of curative medicine in a course of practice. It is plain, therefore, that the plan followed at Heidelberg is by much more complete, and we may infer, efficient, than that of Edinburgh, or that in principle nearly identical one adopted in Paris. Under the head of what Conradi calls "Auscultanten" fall the whole of the pupils of the Scotch, Irish, and French schools. There is, however, at

Heidelberg a second or senior class called "Practicanten," who are in the enjoyment of advantages unknown to the clinical students of France and Great Britain; those senior or practising pupils are charged with the treatment of the sick under professional superintendence, and are, in fact, junior medical practitioners acting under the direction or inspection of a senior or consulting physician. The "practicant" must visit acute cases at least twice daily, and be within call at all hours of the day and night; he must be in constant communication with the professors, and keep full and accurate reports.—Vide Conradi, Rap. 6. On the whole, I think there can be no doubt that the methods of Edinburgh and Paris are not well calculated to make practitioners: the means employed are not adequate to the effect required. I wish, therefore, through the instrumentality of the widely-circulated pages of THE LANCET to call the attention of London physicians, and particularly of the meritorious institutors of the Westminster Hospital clinical school, to more perfect models than any that the empire of France or Britain afford.

To the objection that Britain is a free land, entertaining sentiments and habits hostile to such undertakings, I reply — That in midwifery the thing is done daily in this country without disguise; that much of the practice of dispensaries in this very capital devolves upon pupils and other undergraduates; that our hospitals likewise present examples in the offices of house-surgeon and apothecary; and that since the practice of undergraduates prescribing is to a greater or less extent already established, and regarded with tolerance if not with partiality, there can be no good objection to conferring by public recognition, respectability and distinct and defined responsibility on practitioners, whose labours are on the whole useful to medical art and to the public health; and who, at all events, cannot or will not be suppressed: the fact is, that under superintendence, as at Heidelberg, nothing but good could result. The "practicant" of Heidelberg is as much the friend as physician of the sick; through him the patient can manifestly communicate every little wish to the authorities and servants, medical and non-medical, with far greater effect than through any subaltern officer; experience would quickly teach patients not merely to tolerate the practicanten but earnestly to desire their attendance.

J. C.

P.S. From a hand-bill of the Physicians of the Westminster Hospital, which I have observed in the shop, I think of Messrs. Callow and Wilson, I have reason to think that something similar to the Heidelberg plan is in contemplation. If those Gentlemen have the courage to introduce so wholesome an innovation as that above recommended, they will deserve and obtain the thanks of every well-wisher to practical medicine and of every public-spirited individual.

SIR A. COOPER'S PORTRAIT—*Where is it?*

To the Editor of THE LANCET.

SIR,—I am happy to find, by a recent Number of your valuable publication, that Paul Pry has made his entré at one of the Borough hospitals; at his next visit, I hope he will "drop in" at Guy's, and make the following inquiries, viz.:—What is become of the sum of money, to the amount of near 700*l.*, subscribed about eleven years ago, by the students, for a portrait of Sir Astley Cooper, Bart.?—Whether Messrs. Key or Stocker were appointed treasurers?—And lastly, To what use the interest, which, by this time, simple and compound, will amount to nearly the original sum, is to be appropriated?

Paul Pry may rely upon it, that his "dropping in" will not be considered an "intrusion" by those gentlemen who subscribed their guineas on that occasion.

I remain, yours, &c.,

A CONSTANT READER.

QUACKS AND REGULARS—IRISH WIT.

IT has been somewhere said, that the only difference between a *quack* and a *regular* is this: that the one kills you, whilst you "*die under*" the other.

A poor Irishman, who was lately admitted under the care of Mr. Travers, seems to have been much of this way of thinking. He was the subject of an eruptive disease; and when questioned by Mr. Travers, as to whether he had "ever been under the care of a quack."—"*Och! no,* (rejoined Pat), *plase your honour—Shure I never went to a* HOSPITAL *before.*"

CASES OF EXTRAVASATION OF URINE.

ST. THOMAS'S HOSPITAL.

CASE 1.—*Extravasation of Urine, from ulceration of the Urethra, with Stricture anterior to the Pubes, followed by Sloughing of the Integuments of the Penis.*

J. DIGBY, ætat. 60, an infirm man, admitted into George's Ward on the evening of the 17th of September, under the care of Mr. Green, with incipient gangrene of the integuments of the penis.

It appeared, from the patient's statement, that he had been affected with stricture of the urethra, and great difficulty in passing his urine for several years; and that, at one period, he underwent an operation in the perineum, in consequence: for several months previously, he had passed his urine only by drops. He said, that he had frequently used bougies—in fact, that he was in the habit of employing them from day to day; and a few days before his admisssion, he attempted to pass one; and, in doing so, used considerable force—shortly after this, the penis began to swell. When admitted, there was a dark vesicle, of the size of a shilling, on the dorsum of the penis, and it was affected with general œdema, the integuments being of a dark red colour. The treatment of the case devolving on Mr. John South, in the absence of Mr. Green, this gentleman, after considerable difficulty, succeeded in passing a silver catheter into the bladder, and drew off about a quarter of a pint of urine; the instrument was retained by means of tapes. The obstruction to the passage of the catheter, was stated by Mr. South to be especially felt, at about four inches down the urethra, and also in the membranous portion. A poultice of stale-beer-grounds was directed to be applied to the penis.

18. There is now a slough on the dorsum of the penis, of the size of half a crown; the whole of the integuments are œdematous, and greatly swollen; there is much pain extending up the chord on each side, with tenderness on pressure, as also over the pubic region generally. The scrotum is inflamed in appearance, and somewhat swollen; but, on close inspection, there seems to be no indication of urine being extravasated; the perineum is free from tenderness. The catheter is retained in the bladder; poultices continued to the penis, and the bowels have been opened by a mild purgative. There is some constitutional irritation; the tongue dry; pulse about 90, and compressible; he complains of thirst, and his countenance is somewhat anxious.

19. Mr. Green visited the patient to-day, and upon examining the parts, found a blush of inflammation to some extent around the root of the penis, with great tenderness on pressure, and an obscure sense of fluctuation. A free incision was made, and a large quantity of fœtid pus escaped. Mr. Green directed five grains of Dover's powder to be given every six hours, in a dose of saline effervescing mixture; the poultices to be continued.

21. The patient experienced much relief from the evacuation of matter, and there is now a free discharge from the opening. Nearly the whole of the integuments of the upper part of the penis are in a sloughy condition.

23. The pulse flagging. Ordered a scruple of aromatic confection, with five grains of the carbonate of ammonia, and ten minims of laudanum in camphor julep, every four hours. Sago, port wine, and porter, allowed.

26. A large portion of the slough on the dorsum of the penis has separated. Ordered to apply the dilute nitric acid lotion, by means of lint; over this the poultices to be laid.

28. The slough entirely detached, leaving a florid healthy-looking surface; about the upper half of the penis is thus denuded. The lotion and poultices are continued. Mr. Green withdrew the catheter to-day and reintroduced it without much difficulty.

Oct. 7. Nothing material has transpired since the last report; the parts have gone on gradually healing, and the patient improving in health.

11—17. The parts healing fast; the patient's general health good, and he urinates without much difficulty.

GUY'S HOSPITAL.

CASE 2.—*Extravasasion of Urine, from Ulceration of the Urethra; with Stricture anterior to the Pubes.—Operation of laying open the Urethra in the Perineum, and fatal termination of the Case.*

THE following highly interesting case of extravasation of urine, occurred during the past week, at Guy's hospital. It will be observed, that although the case, in some respects, resembles the preceding one, inasmuch as urine became extravasated anterior to the pubes in the first instance, from ulceration of the urethra, with stricture at this part; yet the treatment of the case was rendered much more difficult, from the utter impossibility of passing a catheter; and thus it became necessary, in order to stay the further infiltration of urine, that an opening should be made in the perineum; but this operation was deferred (we had almost said *unfortunately*) until the urine had found its way into the perineum, and the case, as will be seen by the report, terminated fatally, the post mortem examination showing very singular and extensive disease about the prostate.

J. Pugh, a stout middle-aged man, was admitted into Accident Ward, on Friday evening, September 28th, under the care of Mr. B. Cooper. He was sent to the hospital by some neighbouring surgeon, and was stated to be labouring under inguinal hernia; but Mr. Callaway, who visited the man shortly after his admission, arrived at a different conclusion: he found on the right side, near to the root of the penis, a fluctuating tumour, into which he thrust a lancet, and evacuated a considerable quantity of pus. On making inquiry of the patient (who however gave a very unsatisfactory account,) it appeared that the swelling had existed nearly a week; that he had, for several years, been labouring under stricture, and of late had passed his urine in a very diminished stream. The bladder not being distended, and the patient evincing much irritability, Mr. Callaway did not attempt to pass a catheter. He prescribed one grain of calomel, with a grain of opium, to be taken every four hours, and an enema of castor oil; a poultice to be applied to the part incised.

Saturday. We find the patient to-day with a sloughing wound at the root of the penis, on the right side, as large as the tip of the finger, and the skin to some extent around it of a dark red colour. The scrotum is red and swollen, but has no appearance of urine being extravasated in its cellular tissue. The urine is passed with some difficulty: a very firm and insuperable obstruction to the passage of the catheter, is stated by Mr. Callaway to exist a short distance down the urethra, which is also in a highly irritable condition: the bowels are freely open. Calomel and opium continued, and poultices to the wound.

October 1. The wound at the root of the penis has very considerably extended, and the urine partially flows through it; this was observed, in a slight degree, yesterday. *No further measures adopted.*

2. Attempts were made this morning to pass a catheter, by Mr. Callaway, for a considerable length of time, but without success. In the afternoon Mr. Cooper saw the patient, and in vain endeavoured to pass an instrument into the bladder; the obstruction was about two inches and a half down the urethra, and this part being once passed, with a small elastic gum catheter, so that (as Mr. Cooper thought) the instrument could be felt in the perineum, still it was found utterly impossible to carry it further. The ulceration at the side of the penis had now so far extended, that on the occasion of passing a probe down the urethra, another, introduced at the wound, readily struck against it, and the urine passed through very freely; the wound had a foul sloughy appearance, and had much increased in size. Mr. Cooper was of opinion that there was no extravasation of urine in the scrotum or in the perineum; he directed the elastic catheter to be retained, as far as he had been enabled to pass it, anticipating that the urine would flow through the instrument, and thus its passage through the opening on the side of the penis would be prevented. Mr. Cooper also directed that the patient should be put into a warm bath, and the pills of calomel with opium to be continued; nitric acid lotion and poultices to the wound.

3. The catheter was only retained for a short time yesterday; the urine now flows freely through the wound, and the skin around it is much inflamed; the scrotum and also the perineum are tender on pressure, but there is no distinct indication of extravasation of urine; and this is stated to be the reason for not laying open the urethra in perineo, as proposed yesterday. The pulse this morning is low (there has been nothing remarkable in its character hitherto,) the tongue is dry and fissured. Some julep of ammonia prescribed, to be taken every four hours.

4. Much the same; no further means employed, the urine continuing to issue from the wound.

5. It was evident on examining the patient this morning, that extravasation of urine had taken place in the perineum. either by a fresh lesion of the urethra, or from the urine infiltering into the cellular membrane at the ulcer existing at the root of the penis, and passing backwards; the scrotum, however, was not much swollen. — It was now determined upon to perform the operation of laying open the membranous part of the urethra: this was accomplished by Mr. B. Cooper with some difficulty. An incision was made somewhat similar to that practised in lithotomy; but owing to the engorgement of the surrounding cellular tissue with ill-conditioned pus and urine, the parts had become so much altered in appearance, that the passage of the urethra was not readily found. However, at length Mr. C. suc-

ceeded in passing an elastic catheter onwards, apparently into the bladder, and this was retained.

6. The pulse very feeble; tongue dry, covered with a thick fur, and cracked; the wound in the perineum looking sloughy, that at the root of the penis cleaner, and the integuments around less inflamed. The catheter is retained in the perineal opening, and *the urine passes freely through it.* Ordered, five grains of carbonate of ammonia, with half a grain of opium, to be taken every four hours. Wine to be given at intervals.

7. The patient died this morning.

Post Mortem Examination.

The urethra was sound and healthy, to about the extent of two inches and a half downwards, and here a most extensive destruction had taken place, in fact all appearance of urethra was gone, and a large sloughy pouch was formed by the surrounding cellular texture, so that it was impossible to pass a director onwards to the bladder. The urethra was so completely destroyed, that there was no remains of the stricture to be seen; this had given way in the general and extensive ulceration and sloughing which had evidently taken place from the extravasation of urine. Proceeding from the ulcerated portion, the bulbous part of the urethra was found to be healthy; at the posterior part, that is to say, at its junction with the membranous portion, there was an evident preternatural narrowing of the canal, and upon close inspection some thickening beneath the mucous membrane was detected, constituting a stricture; but, as Dr. Hodgkin remarked, by no means "a bad stricture." The incision which had been made through the perineum into the membranous portion of the urethra, and which we suppose was intended to be carried onwards, through the prostate and neck of the bladder as in the operation for lithotomy, was found to have been made obliquely through the under part of the prostate gland, *but had not entered into the bladder, nor had the catheter been introduced from the wound into the bladder.* The fact is explained thus—the ducts of the prostate gland were enormously enlarged, and from the dilatation of these ducts, sacculi were formed in the prostate, containing calcareous matter and urine, and having a free and direct communication with the bladder by means of the mouths of the ducts. The knife, therefore, had cut through a portion of the prostate gland, and opened into the largest sacculus, which was on the left side and underpart of the gland; a gush of urine consequently ensued, and of course led to the belief of the bladder being opened; into this sac, too, the catheter was introduced from the perineum, and the urine readily flowed, in consequence, as we have seen, of the direct communication existing between the pouch and the bladder itself. The point of the knife had evidently gone immediately beneath the mucous membrane of the neck of the bladder, and there was an ecchymosed spot of about the size of sixpence on the inner surface of the bladder, above where the instrument had passed. There was purulent matter in the cellular tissue around the neck of the bladder, its internal surface was sacculated, and puriform fluid issued from the cavities when pressure was made.

ST. THOMAS'S HOSPITAL.

The only operation performed at this Hospital since our last report was *amputation of the penis*, by Mr. Travers, in consequence of cancerous disease.

ST. THOMAS'S HOSPITAL.

DISTRIBUTION OF PRIZE MEDALS TO THE STUDENTS.

Mr. Green appears to be resolved to excite a noble spirit of emulation amongst the Students of St. Thomas's Hospital. He has offered a valuable Gold Medal for the best set of Clinical Reports, to be awarded at the termination of the Season; also, a splended Gold Medal for the best Anatomical Preparations, which may be either retained by the student, or they will be taken by the Museum at a fair valuation, with "honourable mention" of the student's name.

TO CORRESPONDENTS,

A vast number of Communications have reached us, all of which shall receive early attention.

THE LANCET.

Vol. I.] LONDON, SATURDAY, OCTOBER 27. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY,
DELIVERED AT GUY'S HOSPITAL BY
DR. BLUNDELL.

Contracted Pelvis.

The distorted pelvis, Gentlemen, contracted in high degree, is by no means frequent in obstetric practice; but those coarctations, which are accompanied with little or no distortion, and in which the contraction is slighter, are by no means uncommon; and more especially are they liable to be met with in large manufacturing towns, as Glasgow, for example, Leeds, Manchester, or this Metropolis. On this account, therefore, although upon the table and in the theatre these contractions make but little show, they become peculiarly deserving the attention of the obstetric student; and I proceed, therefore, to remark a little upon them.

When contractions of the pelvis are occurring in the slighter degrees, those contractions, as you will find from examining our museums, may affect any part of the bony structure; and sometimes it is the *false pelvis*, that is the seat of the contraction; and sometimes the *brim*, or the *cavity*, or the *outlet*, of the true. It deserves remark, however, that the contractions of the *true pelvis* only are of much importance in the practice of midwifery. And further, that of the contractions of the *true pelvis*, those which create the most frequent difficulties, and which, at the bed-side, are found the most frequently to require the use of instruments, are almost invariably found at the *brim* of the pelvis—a fact this of great interest; and therefore, whenever you suspect that there is a pelvis contracted in such a degree that the lever, the forceps, or the perforator, may be requisite, the brim is the part of that pelvis that you should first, and most carefully, examine. To this I may add, that when those contractions are occurring at the brim, it *rarely happens* that they lie *between* the *sides* of the pelvis; they are found *almost invariably between the front and the back*, (terms which I use in a laxer sense,) as in the pelvis I now show you. And this contraction between the back and front, may be produced either by the approximation of the symphysis pubis to the promontory of the sacrum, as you see here, or else by the thrusting of the acetabula towards the promontory of the sacrum. When the contraction of the pelvis arises from the former cause, no distortion whatever is observed; but when it is produced by the latter, namely, by the pushing in of the acetabula, then, together with contraction, some loss of symmetry will be noticed. This you have an opportunity of seeing, in some of the pelves which I now exhibit to you; and, first, I show you the standard pelvis of full size. On laying the child's head into it, the capacity evidently appears too great to require the use of forceps. In the second place, I show you a pelvis slightly contracted at the brim. The outlet here is capacious enough, but at the brim, between the front and back, it is as usual contracted, the symphysis pubis being pushed upon the promontory of the sacrum. On putting the head into this pelvis, you may observe that it completely fills the space between the sacrum and the symphysis; so that if the head were large, and the pelvis small, the fœtus could not be abstracted without the help of instruments, the forceps, for example, or the lever. I show you, in the third place, a pelvis still more contracted than the preceding, in consequence not merely of the advance of the promontory of the sacrum towards the symphysis pubis, but of the retreat of the acetabula through a pelvis like this. The head would not come down, unless previously reduced by that dreadful instrument the perforator. Here, lastly, is a pelvis, in which you see the contraction again in much higher degree, approaching, indeed, to the former class of coarctation, the distorted, I mean, occasionally demanding even the *Cæsarean operation*.

There is one other remark which I add—I might have made it before—upon the subject of these contractions; and this is, that they are sometimes *very partial*—a fact which I find important in my own practice. It sometimes happens, that the outlet of the pelvis alone is the seat of the contraction; but this is not common: much more frequently we find contraction of the brim, while the outlet is capacious enough. Now, in cases like these, the fœtus is sometimes very unexpectedly expelled. Let the womb act, let the child's head advance but one inch perhaps, and after some hours of labour, when the delivery is unlooked for, suddenly the head bursts into the world, while the accoucheur, engaged in washing, or dressing, or refreshing, returns to be informed, that during his absence the fœtus has been expelled. Here, for example, is a pelvis, in which the outlet is most capacious, while the brim is contracted to such extent, that reduced by the perforator, the head could scarcely be abstracted, unless the operation were performed in the seventh or eighth month, when the cranium is small.

Thus much, then, respecting the obstetric anatomy of the *contracted* pelvis. Recollect that all parts of the pelvis are liable to be contracted in a greater or less degree, but that those contractions requiring the use of the instruments are usually at the brim. Recollect also, that those contractions which are lying at the brim may now and then be placed between the one and the other side; but that contractions requiring instruments are rarely so situated, being found almost invariably between the front and the back. Recollect further, that these contractions between the front and the back are produced by two causes; the one the pushing of the symphysis pubis toward the promontory of the sacrum, the other the thrusting inward of the acetabulum on either side; the latter contraction being attended with a certain degree of distortion, as you will observe from the specimen before you. Recollect, lastly, that when the contractions occur, they are sometimes,—and this is a practical fact of no small importance,—they are sometimes confined; they may be placed at the outlet, to a particular part of the pelvis; but are more generally found at the brim, so that if the head once pass the brim, whether under the use of instruments, or by the natural efforts, all further difficulties vanish.

When the pelvis is contracted, the birth is more or less obstructed, especially if the fœtus be larger than ordinary; but in these difficulties, the rules of management are, I think, simple and intelligible. If no dangerous symptoms appear, we ought to give a fair trial to the full efforts of the uterus for four-and-twenty hours after the discharge of the liquor amnii, abstaining, as long as may be, from the use of instruments, for they are great evils, and a meddlesome midwifery is bad. But should dangers arise referrible to the prolongation of the labour, or should the woman be in labour for twenty-four hours after the discharge of the liquor, the head not advancing, you would then, if skilful, be justified in making trial of the lever or the forceps, constrained by any overbearing necessity. Or further, should the dangerous symptoms become pressing, or should the womb have been in action for eight-and-twenty hours, the head still not advancing, the lever or forceps having failed, though used by the most dexterous hands within reach—perforation, a dreadful operation, of tremendous responsibility, would, I conceive, become justifiable. Or lastly, should a woman, losing half a dozen children successively, in consequence of deficient room, yet again become pregnant; under such circumstances an attempt might be made to facilitate her delivery, and save the fœtus by inducing parturition at the end of seven months and a half, when the parts of the fœtus are small, and its powers sufficiently great to render its preservation probable. Instruments, remember, are never to be used but with reluctance, and when the necessity is inexorable, when conscience tells you that you would wish their employment in the case of your nearest relative, or of those still dearer.

There are *three principal causes* by which the distortions of the pelvis considered on the preceding morning, and the contractions on which we have just been making our observations, are produced; and these three causes are *mollities ossium*, *rickets*, and the *fracture* of the bones. It sometimes happens, though rarely happily, that the skeleton is attacked by a disease generally fatal, under which the *animal* matter *predominates* and the *osseous* matter is *deficient*; the result is a *softening* of the bones, so that yielding like tempered wax they become distorted in every part of the skeleton to which pressure is applied. A specimen of such a pelvis I now exhibit to you. It far more frequently happens in unhealthy situations, and where the children are pale and weakly, and ill nourished, that the form and capacity of the pelvis is altered in consequence of rickets, a disease allied to mollities ossium, except that it is confined principally to the earlier period of life. Here you have as before the animal matter redundant, and the osseous matter deficient, and some softening of the bones is produced. Now the contractions of the pelvis, where you have not the higher degrees of distortion, are, I think, principally occasioned in this manner by rickets; and on this account, where children are known to be ricketty, female children especially, you ought to give particular directions that they be not put too early to the ground. It is wrong even in the case of males, but by putting a young female, when prone to rickets, to the ground too early, you may give rise to one of those contractions of the pelvis which may be the torture of her future life. Fracture of the bones is not a common cause of their distortion; now and then, however, it occurs, and where it does, usually gives rise to the higher degrees of contraction, as in the case I was narrating to you in the preceding lecture.

Small Pelvis.—Ayesha, the favourite wife of Mohammed, was married at nine years of age. Patriarchs and Apostles have their privileges. If a girl become early impregnated, as in the Eastern countries, at the age of twelve or thirteen years, for example, in common with the other parts of the skeleton, the pelvis will be small; and of course the pelvis will be of small size if the woman, though of full age, be of *dwarfish* stature. By a small pelvis then you are here to understand, a pelvis which preserves its proportions and symmetry, but in which all the measures are unusually short. Here is a skeleton of this kind, a very excellent specimen; and in order that you may the more readily perceive its diminutive size, I place it beside the standard. When the pelvis is small, the woman is small, the child is small, and the parts corresponding with each other, parturition becomes easy; but this, however, is not invariably the case, and thence sometimes difficulty arises. A woman with a small pelvis has occasionally the misfortune to produce very large fœtuses; I myself know a woman, not exceeding the ordinary stature, who has produced several children, one of whom, to my own knowledge, weighed eleven pounds at birth, and the other nearly seventeen, though the general weight is only seven. Unhappily for females who are of a small size, the stature, or other qualities of the father, seem to have an effect upon the child. A friend of mine had in his possession two dogs, one of them a somewhat small bitch of the Danish breed, such as you see running after our carriages, the other from Newfoundland, an unusually large animal, and a male. Unluckily for the female a connexion was accomplished between them, and six puppies were produced; of those, three were expelled, not apparently without much difficulty, but the other three remaining could not be emitted, so that the poor animal died undelivered. Now this I state to you, first, as an example of the difficulty of parturition occurring in an animal; and secondly, and principally, for the purpose of satisfying you that the largeness and other qualities of the male parent, like those of the female, may influence the bulk of the fœtus. But you will ask me, perhaps, what is to be done if a woman have a very small pelvis and a very large fœtus? Why, that is to be done which you would find necessary in a case of contracted pelvis; you must proceed exactly on the same principles: and this simplifies and narrows my observations. You may be compelled to use instruments, but do not officiously and pragmatically interfere; give a fair trial of four-and-twenty hours to the natural efforts if no dangerous symptoms appear; if the natural efforts fail, or dangerous symptoms manifest themselves, make use of the lever, or forceps; if they do not succeed, and dangerous symptoms attack the patient, or if the woman have been in labour six-and-thirty, or eight-and-forty hours, lay open the head of the child by embryotomy: a repetition this of the rule before prescribed.

Large Pelvis.—As a pelvis may be small in all its dimensions, so also, on the other hand, we sometimes meet with those that are *unusually capacious,* a very extraordinary specimen of which I now exhibit; to some giantess, you might suppose, this pelvis had belonged—to one of the larger daughters of Anak. By placing beside it a small pelvis, its extraordinary bulk is rendered more conspicuous; large in all its dimensions, a pelvis like this will not of course give rise, in ordinary circumstances at least, to difficulty during labour. But there are other evils not to be despised, and which are produced by this deviation from the standard. Having a large pelvis, women become more obnoxious to a disease called *retroversion uteri,* the nature of which may be more fully considered hereafter. Under this disease the *womb,* in the third or fourth months, having acquired the size of the head of a large full-grown fœtus, will now and then change its position, the *fundus* lying below the promontory of the sacrum, and the *mouth* rising and advancing. Now to this displacement all women, indeed, are obnoxious, but those more especially of whom the pelvis is large, there being more room for the retroversion to take place.—Among the evils then resulting from a large pelvis, set this down as one not to be forgotten: the greater facility with which the womb becomes retroverted.

There is another disease to which all women are exposed, those however more especially who have a large pelvis, and in whom the parts are relaxed; and this troublesome affection is the descent of the womb. Varying in the degree of descent, the womb sometimes comes down a little way only, and sometimes just appears through the outlet in front, and sometimes lies out a considerable distance between the thighs. Now this descent of the uterus, to which I have said all females may be subjected when the parts are relaxed, occurs certainly most frequently where the pelvis is capacious, and not only in the *earlier*, but sometimes in the *later periods*, of gestation. There is a case related in which the womb, during labour, actually protruded beyond the external parts before the mouth was fully opened, so that the *os uteri* could be distinctly seen, and the child behind it; in this case the pelvis was over capacious. You may, therefore, set down, as a *second evil*, resulting from this over capacity of the pelvis, the greater facility with which the *prolapsus of the uterus* is apt to occur in maids, and mothers during gestation or in the unimpregnated state. But of all the evils resulting from the largeness of the pelvis, the last which I shall mention, and the most important, is the *unexpected* and *sudden* manner in which the child is sometimes pushed into the world. A woman is walking in the street; she attempts to cross to the other side, perhaps a little agitated, and the child drops from her. In a carriage the motion of the vehicle is considerable, from the roughness of the road, the street not *Macadamized*, (laughter) and the child comes away. The woman feels an irritation of her bowels, not uncommon when parturition is about to commence; she retires, makes an effort, and loses her child. Dr. Lowder used to relate a case which is well illustrative of this, and calculated to make a useful impression on the mind:—A patient of his had a pelvis unusually capacious; the softer parts were relaxed; she was the mother of many children. He called on her to know whether she had any pains about her, desirous not to be out of reach when labour might supervene; she had none; he returned promptly to his own house, which was where I now reside, and by the time he reached the door he found the husband had arrived, there too to tell him that the child was born, adding, that when he left the house the lady, in crossing the floor of her drawing room, was seized with the *single pain*, by which the fœtus was expelled. And thus it is by no means improbable, when the parts are relaxed and the pelvis is capacious, that the child may unexpectedly be expelled, and precipitated into situations of most imminent danger.

Now this enables us to answer a question, which may be put occasionally in a court of justice, and to which you should always be prepared with a reply, namely, whether it be possible that a woman may be delivered without knowing that labour is about to occur at the time. I will suppose that a woman becomes the unfortunate subject of an illegitimate pregnancy; I will suppose further, that moved by that modesty which seems to be ingenerate in the sex, she is induced, without evil design, to delay a disclosure till delivery render it inevitable. I will suppose, too, that a woman thus circumstanced, with a pelvis which is capacious, with a fibre which is thoroughly relaxed, feeling bowel irritation, retires; the womb acts, the fœtus is at once precipitated; she hears no cry, she deems it lost; she has a moment to take her determination,—she decides amiss; she has not the resolution to step forth and promulgate her shame. But circumstances create suspicion; the child is discovered; she is summoned into court. Then comes the question for the accoucheur, is it possible for the child to be precipitated before the mother is aware? To this it may be replied, that if the pelvis be large, and if the softer parts be relaxed, it is not only possible, but in a manner probable. On occasions like these, I conceive, substantial justice requires that women should have the full advantage of every leaning in their favour. The laws and customs of mankind are of the masculine gender. Who are the legislators is very obvious. Not to mention the male tyranny of Asiatic, or semi-barbarous nations,—notwithstanding the influences of chivalry; our own system, with respect to woman, is austere enough, perhaps oppressive. Unmarried, perhaps, because the over-wrought civilisation of society renders a family a burden; solicited, because the lawgivers and custom-makers assume to themselves, without shame, a sexual licence, their boast often instead of their infamy. Deprived of caste, like a contaminated Indian, if the offence be detected, with no effective public provision for the foundling, a woman becomes a mother, and is driven on a crime the most revolting to maternal instinct. Law follows; the crime is execrated; the culprit is suspended to the gallows by the very sex which has so large and solid a share in the offence; the very sex which, in this country, has turned the accoucheur, with his perforator, loose upon society to open the heads of living children without accounting to any, and then——to dinner. But all this is unavoidable; be it so. Let it be remembered then, that of these unfortunate creatures some are to be looked on rather as victims than criminals.

Thus much, then, respecting the different forms of pelvis, so far as they are interesting to the accoucheur; the standard, the large, the small, the contracted, the distorted—specimens of all of which I now place before you. Other varieties of the pelvis you will also meet with in practice, but they are of so little importance that I forbear to dwell upon them. Sometimes the *wings* of the *ossa innominata* are unusually *spread out*, and in other cases you will find them *more erect*. In general I have said the brim is oval; sometimes it is rounded. In some pelves you will find the spines of the *ischii* long, and penetrating far into the cavity. I have already told you, that the coccyx, consolidated by osseous matter, may be at right angles with this bone, so as to occasion an obstruction. Now and then osseous matter is placed on the promontory of the sacrum, giving rise to difficulty in parturition.

Means of ascertaining the kinds of Pelvis:— Of the means of ascertaining in the living subject, the kinds of pelvis which nature has allotted to the patient, I shall now proceed to speak; for you must be aware, Gentlemen, that it would be of little consequence to know there are varieties of pelvis, requiring a corresponding diversity of treatment, unless you can, at the bed-side, state with tolerable certainty upon which of these pelves it is your duty to operate. Independently of a very accurate *internal examination*, which is not always practicable, you may often form a very useful and probable conjecture, whether a woman have such a contraction of her pelvis as is likely to give rise to difficulty in parturition, in the following manner: when the pelvis is contracted, not unfrequently I have said this is the result of rickets in early life, or from mollities ossium; and in these cases, the other parts of the skeleton are suffering too. Now, though it does not invariably follow that where you have distortion of the arms, legs, fingers, toes, or spine, the pelvis should be contracted so as to give rise to difficulty, yet in such case, pelvic distortions are by no means improbable. Observe, therefore, the other parts of the skeleton, and you will be able to form an opinion respecting the pelvis.

Again: you will sometimes find persons distorted in a high degree about the upper part of the spine, in consequence of some *local disease* there, the pelvis notwithstanding being of the natural dimensions; you are not, therefore, hastily to infer, because there is a distortion of the upper part of the spine, the result of topical disease, that there exists a distortion of the pelvis; for very considerable spinal distortion will take place, without distortion of the pelvis. But if the person be labouring under distortion of the *lumbar vertebræ*, particularly the lower lumbar vertebræ, and more especially if she has an *unusual hollowness in the loins*, then generally contraction of the pelvis will be found to exist. A woman distorted in a high degree was brought to one of the medical schools at *Paris*, and there was, among the pupils, some whisper about the Cæsarean operation, but while they were considering the point, the child suddenly came into the world; and it is remarkable that this woman became a mother by a French *grenadier*. The woman died afterwards, and it was found that there was only a slight contraction of the pelvis. There was another female, with what is called *a hump* on the back, brought into one of the French hospitals; and this woman being asked whether she had borne any children before, replied she had six, all born alive. Therefore you must not infer generally, from a case of distortion of the spine, especially of the upper part of it, that there is a distortion of the pelvis; nevertheless, where you have this hollowness of the loins, which I now show you, contraction of the pelvis may always be *suspected*. In this pelvis you see there is but an exceedingly small space between the front and back, so that embryotomy would be necessary to delivery. The arts of *dress* would conceal, in great measure, deformities of this kind. Here indeed is a fine specimen of a spine distorted in a high degree, and the pelvis very large notwithstanding, and very little distorted.

Where you are anxious to know whether a woman has full capacity or not, there is yet a *third* inquiry to be made, and that is concerning the result of *previous* labours. If the woman has had five or six children all born dead, or all requiring the use of extracting instruments, or all sacrificed to the perforator, though the practitioner, not being your, rival may be supposed to have talent, there can be no doubt that there is a want of capacity there; on the other hand, if you learn that the children have been born alive, in whatever state the parts may be, it is quite clear there is a sufficiency of capacity, unless, which is highly improbable, subsequent contraction have occurred. So that by inquiring into previous labours, by cautiously making your observations on the spine, and by examining the skeleton generally, you may form a very probable opinion, whether the pelvis be of full capacity or not.

When women are in labour, knowing, as they do, the necessity of the operation, in general they cheerfully submit to *internal examination*; and this being the case, you, as accoucheurs, have the means of ascertaining the variety of pelves on which you may have to act. With a view of ascertaining the measures and dimensions of the pelvis, our *Gallic* neighbours have contrived an instrument sometimes called a pelvimeter, and an implement not to be altogether despised. The instrument was invented by Coutouli. It consists of *two rods*; the one slides along the other in a groove; upon the *superior rod* there is a graduated *scale of inches*, and, at the end of each rod, as you observe, it is an upright. The mode of using the instrument is twofold: you may either, where the soft parts are relaxed in a high degree, use it *internally*, or you may apply it *externally*. When you apply it internally, placing one upright upon the *symphysis pubis*, and the other against the *promontory of the sacrum*, you may read off by the scale the distance between the two. If the parts are too rigid to admit of your using it internally, then you must lay one upright against the projection of the promontory, and the other to the pubes; and *seven or eight lines* must be deducted, as an allowance for the thickness of the soft and harder parts in front, when the difference will give you the clear space between the front and the back. By accoucheurs of some repute, there is another instrument much applauded, and this instrument, which I now show you, is nothing more than a pair of bow *compasses*, more useful, perhaps, than the other, because of very easy application. The method of using them is this: you place the one point on the symphysis pubis, the other on the spinous process of the last lumbar vertebra; then deducting *three inches*, (I think it is, but I will consult a memorandum I have,) in that manner you obtain the clear space, interposed between the sacrum and the symphysis pubis—three inches it is. This is an instrument I do not use myself, for I measure the pelvis in another way, as I shall now explain to you, but I deem it an useful one.

Besides these methods, you may also measure the pelvis *very sufficiently*, by means of the *fingers*. If you want to know the distance between the front and the back, let the fore finger be placed on the promontory of the sacrum, and the root of the finger at the arch of the pubes. To measure the brim from side to side, you may *spread out* the fingers, as I now show you. Introducing all the fingers closely together, and then spreading them from one side to the other. But a better method of measurement, I think, consists in the application of all the fingers to the *back part* of the symphysis pubis. If there be want of room behind the pubis, you will then feel something of an *angle* there. If the brim be of full measure, from side to side, when all the fingers are introduced and placed behind the symphysis, they will, as you here observe, lie all of them in the same place. If you wish to measure the *outlet* of the pelvis, the most convenient time to accomplish this is, when the child's head is there, and certainly then the inquiry becomes most important. You may easily pass your fingers round between the bones and the head, and so ascertain whether there is a sufficiency of space. If you think it worth while, however, before the head descends, you may measure the outlet of the pelvis, from front to back, first by putting the fingers in this manner, so that the root of the index lies against the arch of the pubes, and the tip of it upon the coccyx, thus ascertaining the measure between the front and the back; secondly, by laying all the four fingers into the arch of the pubes, when you ascertain the distance between the tuberosity of the ischia—in other words, the measure from side to side. However, all these I pass over, without further remark, because, in general practice, you will find them but of little importance.

When the pelvis is contracted in a slight degree only, and you have one of those difficulties arising from that contraction between the front and back, of which I have said the brim is the most frequent seat: there is another mode of ascertaining the deficiency of room, and which experience has led me to prefer before the preceding. If I were called to a woman supposed to labour under this contraction, my first inquiry would be, how many children have you had? Twelve, she might answer, if she were of the lower class of life. Were they born *alive* or not? And if she told me that all or most of them were born alive, I should thence infer that contraction of the brim was by no means probable. Now this is a question which any of you can put as well as the most accomplished professor; it is so easy and so important that it ought to be your first inquiry. On the other hand, if she were to say, all my children were born *dead*, sir; then I should suspect a contraction. If I suppose a woman has a contraction of the pelvis after making the inquiry I have mentioned, I make a careful examination with my fingers: and if a pelvis be of full size, I find myself there is no difficulty in reaching the promontory of the sacrum, though you, commencing practice, may perhaps not be able to distinguish it, because it lies so distant from the symphysis pubis, that the fingers must reach very far to find it; but if I find, which I too often do, the promontory coming forth as it were to meet the tip of the finger, so that in a manner we blunder upon it, then I know that contraction exists. To judge in this manner, however, it is necessary that you know the promontory when you feel it, a piece of intelligence this which all do not possess. I have known the promontory to be mistaken for the child's head; and I have heard of an attempt to introduce the perforator in such a case, not in the *country*, of course, for that is a land of *Goshen*, where no darkness is. (Laughter.) But to proceed: if a poor patient have a pelvis, in which contraction is suspected, I inquire in the third place, how long she has been in labour? If I find that she has been in labour *only an hour or two* after the discharge of the liquor amnii, I do not infer there is a want of room at the brim; but if she have been in labour, in very strong labour, for twelve or twenty-four hours after the discharge of the liquor amnii, the softer parts being relaxed, and the fœtus making no progress, the probability is, that room is deficient.

Suspecting the contraction of the pelvis, in the *fourth* place, I make my examination very carefully of the state of the child's head, always to be felt. If it is not swelled, but apparently in a good condition, I have proof that it has not been injured by long pressure; and I have presumption that there is no deficiency of room: but if, on the contrary, the parietal bones are lying over each other in this manner so as to form a ridge, and if the head feel considerably swelled and soft, so as to resemble the breech, I then infer that it has been subject to much compression, and that room is wanting.

In the last place, as I wish always to ascertain this point with as much accuracy as may be, as soon as the head is fairly come down among the bones of the pelvis, I endeavour to pass the fingers between the symphysis pubis and the cranium, inferring on the one hand, that room is wanting, provided they cannot be passed up, and, on the other, that the pelvis is of full capacity at its brim and in its cavity, if the fingers can be lodged between the head and bones without difficulty; that this observation may have value, however, it is absolutely necessary that the head, as observed above, should be thoroughly within the pelvic cavity.

So then, to repeat, by passing the fingers between the bones and the head; by ascertaining what is the condition of the head, and more especially the existence or absence of an intumescence of the scalp; by learning what has been the duration of the labour under strong pains, after the discharge of the liquor amnii; by making out whether the promontory of the sacrum can be felt with facility or not; and by inquiring of the patient what has been the result of previous labours: I am enabled in most cases at the bed side to say without difficulty, whether there is such a contraction of pelvis, as demands the use of instruments. To me it matters little what is the precise measure below or above. With lines of an inch or a quarter of an inch I have little concern; all I want to know is, whether there is such a contraction above as to require the use of instruments; and by the preceding means, independently of these nicer measurements, I am enabled to ascertain it.

When we meet again, Gentlemen, we shall resume.

LECTURES
ON THE
INTELLECTUAL COMPOSITION OF MAN,

Delivered at the London Medical Society by

DR. HASLAM.

Lecture III.

On Volition.

When we contemplate the structure of the human body, when we observe the intellectual capacities that man enjoys, and likewise consider his moral nature and responsibility; it becomes evident that he was formed to act. Whoever will institute an examination of his bodily frame, will be convinced that it was constructed for motion, and possesses the necessary apparatus for active exertions. The parts principally inservient to these active operations, are termed muscles, which move the body collectively, and each member separately; and thus we are enabled to perform that variety of motions which is exhibited by different individuals of our species. A very slight inquiry will satisfy us, that all motion must have some cause, and that the movements of the human body are directed by some impelling power. The next inquiry, will of course lead us to ascertain, what are the powers that produce the motions that are displayed in the human body? When the child is born, it obviously possesses a number of distinct movements: the heart pulsates, respiration is performed, and the intestines have a species of vermicular motion, which is termed peristaltic: the lips, likewise, adapt themselves to compress the nipple of the mother, and produce that exhaustion, whereby it receives its fluid nutriment: the infant has also, occasionally, some irregular, and seemingly spasmodic movements of its limbs. If any food that has been received into the stomach, and propelled into the intestines, should excite painful gripings, the knees are drawn up to the abdomen, and it also sends forth its cries, the signals of pain or distress. A very moderate acquaintance with physiology will inform us, that two of the principal vital motions, the action of the heart and the peristaltic revolutions of the intestines, continue during life, and cannot be *directly influenced* by any endeavours we may exert to accelerate or retard them, much less to suspend their determinate motions by any act of the will. These motions have, therefore, been called involuntary. The term involuntary, however familiar and accredited its use, is merely the negative of those performances, which another set of moving powers may acquire, namely, by being educated to act by the influence of the will. The term affords no explanation of the functions they perform, or of the agency by which these movements are continued. While the fœtus continues in utero, its organs and members are incipiently formed by constituents, little capable of being individually discerned, or evolved from rudiments equally indistinct, and it continues progressively to augment, until a magnitude and perfection are attained that adapts it to the state of being into which it is propelled, although during utero-gestation, the ovum or fœtus is fully entitled to the character of an organised and living existence: yet it has never been pretended, that it possessed any voluntary exertions. The term therefore of involuntary, does not even notice, much less comprehend, those fabricating energies, and continuity of actions, that constitute life. Shortly after our introduction to this world there are other motions which we acquire, by degrees almost imperceptible, and which we may progressively observe, from the period of the infant's birth, until its arrival at maturity: but without tediously tracing the steps of this progression, we find that all the limbs, by constant exercise, are rendered capable of performing those motions for which their structure is adapted; and that these movements are *directed* by the individual for the attaintment of his object; and likewise by attention and repetition, that these motions, however difficult at the first attempt, become easy by practice. These are the voluntary motions, and their direction is an act of intelligence for the accomplishment of the desired purpose. The education of the muscle, in order to become stimulated by the will, is a process apparently similar, and equally gradual with the excitement to perception, by the appropriate objects that awaken the sensitive organs: and, therefore, perception will be found a principal mean by which voluntary motion is attained, and voluntary direction equally contributes to the attainment of perception, as all the sensitive organs have a muscular apparatus for their direction. It has been supposed that the performance of these motions depended on the directing and intelligent principle: but it will be found the result of a compact, or mutual agreement between the moving powers, and the intelligence that directs: the natural effect of reciprocal training. Let a painter, who is a skilful artist with his *right* hand, attempt to copy his performance with the *left*; and he will be ashamed of his picture. Let an ordinary person of mature age attempt to move the ring-finger exclusively, he will find that the little finger will move with it; but a person accustomed to play on the flute, violin, or piano-forte, will be able to exert its independent motion. This necessary education of the muscles to produce definite movements is the subject of actual demonstration, and is exemplified by the awkward manner in which the first attempts to execute all unaccustomed movements are performed.

To exemplify the total want of control in the new-born infant over its muscles, the sphincters of the anus and bladder may be selected: and it is well known, that for a considerable time after birth, the fæces and urine pass off involuntarily, and in all probability, without consciousness: indeed, those most acquainted with the management of infants, are aware of the difficulty, even under coercion and punishment, of teaching them to impose the necessary restraint, and to communicate the urgency to the nurse. Voluntary motion, is therefore not an original possession, similar to those movements that are involuntary, but an acquirement from reiterated efforts and long practice. It is the education of the body, to co-operate with our mental intentions. We admire the dexterous rapidity with which the juggler performs his tricks of legerdemain, the poise of the equilibrist,—the graceful and complicated movements of the dancer,—and the synchronous action, and perfect rest of military evolutions. These are not capable of being immediately executed, because we desire to perform them, and comprehend the nature and succession of the movements:—it requires constant exercise, under the most concentrated attention,—and for some, the devotion of years before the attainment is perfect. There is abundant wisdom displayed in constituting the movements most essential to life, independent of human volition. Had we possessed the power, without pain, of directly stopping the motion of the heart, so as to induce death: there is but little probability that any of our species would arrive at maturity, considering the passions by which we are agitated, and the miseries that surround us. Over the respiratory organs, we possess a limited control: and for many useful purposes can temporarily suspend the act of breathing, and by habit, for a few seconds, may protract the suspension:—but we are unable to continue this pause to the extent of destroying life. After our volition for the attainment of this object, has been caried to its utmost extent, there is an irresistible urgency to inspire;—which our utmost endeavours to suppress, cannot longer impede. I have known many melancholics disposed to suicide, whose hands being so secured, that it was impossible they could effect their purpose,—have endeavoured to arrest the process of respiration: —but without success. I have likewise attended others firmly secured in the strait-waistcoat, attempt to drown themselves in a bowl or pail of water, by immersing the mouth and nostrils in the fluid;—but they have never been able to accomplish their intentions. This subject has not been sufficiently considered; nor have the voluntary and involuntary capacities of the different organs, been thoroughly investigated. The penis, for example, is a member that cannot be strictly said to be either voluntary or involuntary, implying by the latter term, that there is no established continuity of action, as in the heart, and peristaltic motion. In some states of disease, its erection is so far against the will, that it becomes highly painful, and no effort of volition can subdue the priapism: and it has never been stated that any individual can immediately, will or command the erection, without the intervention of an excitement: such as the female, or in her absence, by occupying the mind on erotic subjects, or by irritation of the organ itself, or of parts adjacent. The secretion of tears, in the adult, is ordinarily the effect of considerable mental excitement: in the child, the slightest causes occasion a pouring forth of the lachrymal fluid; and there is good reason to believe that by repeated efforts, this secretion may be rendered voluntary: perhaps the best specimens of this influence will be disvovered in the ladies: and at a mature age we acquire a degree of control over the secretion itself, and become enabled to impose a restraint on its issue. The contraction of the iris, may also be considered involuntary, as it is necessarily consequent on the excitement of the retina. Our corporeal and intellectual perfection, consists in the voluntary control we possess over the different parts of the body, and in the successful direction of our mental capacities and acquirements. Much of this superiority of attainment will depend on the *attention*, which is itself a voluntary act, and may be considered as the *duration* of the will. Thus every act of the mind, both for the acquirement and improvement of knowledge, implies that voluntary and protracted devotion to the subject, which we term attention.

Although in strictness of consideration, and speaking physiologically, we cannot in our present condition absolutely separate the corporeal and intellectual phenomena, as they are conjoined by nature, and reciprocally act on each other; yet as far as we may, for the purposes of arrangement and distiction, treat of them individually, we shall find our intellectual attainments, in their most perfect state, to be equally with the body, under the dominion of the will.

1st. Our *perceptions* may be excited by the objects appropriated to each sense, so as to be forced on the several organs. Thus a disgusting stench—an unpleasant taste—a passing meteor—the discharge of artillery or the explosion of a powder-mill—a fly settling on the face—these will suddenly attract our notice, and excite their individual perceptions, and which must be considered involuntary: but when we voluntarily devote ourselves to the examination of objects, which implies a fixed attention, the process of perception is most perfectly and efficiently conducted. We are surprised into the former, and study the latter.

2dly. That passive memory, which is merely excited by the representation of a known object, and may be regarded as involuntary, is a very inferior attainment to the active exercise of recollection, where the object or subject can be voluntarily revived: and this can only be accomplished by language, or the employment of a term as the substitute of the perception. When we enter fully on these particular subjects, it will be shown, that involuntary reasonings and reflections, are palpable absurdities, and allied to those confused assemblages, which prevail in dreams and reveries, by the subduction of the will.

We now understand that the perfection of our corporeal and mental attainments depends on the voluntary control we are able to exercise over them: it must likewise be noticed, that to move, or to abstain from motion, are equally the dictates of the will. On many occasions it is desirable that the whole body, or some particular member, should be kept still and maintained at rest: and the continuation of this stationary position, is under certain circumstances an equal difficulty, with the performance of various complicated movements. The slightest knowledge of military discipline will illustrate this with regard to the entire body; and the firm and unvarying hand which the surgeon ought to possess, equally confirms that state of the individual limb. But there are certain morbid states of the body, and of the intellectual functions, where the voluntary control in various degrees is diminished or wholly abolished. The first of these states has been termed paralysis, where all our voluntary efforts, endeavours or commands, to produce the desired motion of the particular limb, are wholly unavailing. We however retain the wish, and exert the accustomed influence to excite the movement; we make the effort to attain, in which the will consists, and are fully conscious, both of the endeavour, and of the failure of the attempt. There is a dissolution of the compact and correspondence that formerly subsisted between the will, and the muscular apparatus by which the limb is moved. In other instances the movement is capable of being performed, but with hesitation and difficulty, on account of an irregular motion which agitates the limb (the hand, for example). This state is termed *tremor*, and implies, that the influence of the will is no longer capable of maintaining the member steady, for the due performance of the motion intended. The motion is involuntary, and the effort to attain the necessary quietude of the limb, is ineffectual; for it has been before observed, that over the involuntary motions we have no control. It seems also to be established, that when muscles, usually under the influence and direction of the will, from whatever cause, assume involuntary motions, they are thereby rendered insensible to the efforts of volition. This however is not the entire solution of the symptom denominated *tremor*,—its motion is a morbid state,—and we are acquainted with many causes that will produce it for the instant, and also permanently; but in the present defect of our knowledge I am not entitled to determine whether this tremulous motion is to be wholly attributed to a state of the nerve, or to the condition of the muscle. The former is most probable, but it is highly desirable that this question should be set at rest. The full discussion of this interesting subject in its physiological relations and moral consequences, would occupy a greater portion of our time, than can now be devoted to its investigation: but it may be concluded, that the converse of the principle on which we proceeded is likewise true:—If the perfection of our nature consist in the voluntary control over the muscular apparatus, which is acquired by assiduous training; and in the command, which the discipline of education confers on our intellectual powers: the diminution of this voluntary influence, will constitute our corporeal inferiority and mental degradation. The state of tremor may be temporarily excited by many of the passions, by which we are agitated; and at a future occasion it will be demonstrated, that the bursts and sallies of these impetuous passions, imply that want of control which by proper discipline, the will might effect: and it is well understood that a permanent tremor of the hand, and general instability of the frame, are the inevitable results of an intemperate indulgence in fermented liquors, and especially of those that have undergone the baneful process of distillation: and it is fully believed, in advanced life, that a lavish expenditure of the seminal fluid, will commonly induce the same tremescence. There are other morbid affections, where the muscles, considered voluntary, are attacked with distortions, twitchings, or snatches, and over which the will has no influence. The sensibility remains, and the endeavour to effect particular motions continues, but the voluntary intention is defeated and the limb is moved in a contrary direction. These spasmodic snatches of the muscles frequently subside during sleep: when it is presumed that the voluntary influence is withdrawn. This affection is termed chorea St. Viti, but hitherto our researches have contributed but little to the elucidation of its nature; and it is not improbable that hiccup may belong to the same class. There are likewise other morbid instances where the voluntary muscles assume involuntary actions, and become fixed or distracted with prodigious force, as in trismus, tetanus, opisthotonos, and emprosthotonos, but the rationale of these is at present equally obscure.

From the circumstances that have been already adduced, it is evident that the influence which has been termed the *will*, equally regulates a certain class of bodily movements, and those intellectual attainments that constitute mind. It has been commonly supposed, that we possess a very competent knowledge of the *vital* actions; but that the *intellectual* phenomena were removed to a distance, far beyond the ken and comprehension of our faculties. To me, it appears, that the great difficulty which impedes our physiological advancement, is the imperfect knowledge we possess concerning these *involuntary* movements, that are so intimately and secretly connected with life—the phenomena of intellect, we are enabled to trace from the cradle to the tomb;—to observe the progressive steps of its acquirement;—to investigate its constituents;—and, by a deliberate examination of our own minds, to detect the manner of its operation. When the voluntary control, which we term attention, cannot be fixed on the object of perception, its identity will not be recognised when it is presented again;—or, in other words, we shall have no recollection of the object. The memory itself, when possessed in its highest and most enviable perfection, is subject to a natural decline, and to various infirmities; and it will be found, that its principal defects are to be attributed to that want of voluntary control over this wonderful faculty, whereby the past is connected with the present, and becomes embalmed for the future. There are likewise many morbid affections by which the intellect becomes deteriorated—the principal of which, are the natural imbecility that constitutes idiotism,—the personal conceits that mark hypochondriasis,—the desponding apprehensions that are the attributes of melancholy, and the furious distractions that comprehend madness:—and these discourses are intended to be the ground-work, by which such morbid affections may be investigated and explained. The will has been considered as an original faculty of the mind, and some philosophers have assigned to it a certain degree of intelligence and discrimination :—it therefore becomes necessary to examine its nature, as narrowly as our researches can extend. The involuntary movements may, indeed, be properly designated an *original endowment*; but the voluntary motions are progressive acquirements; and the attentive observer may trace the rude and incipient efforts, until his admiration is conferred on the most difficult and complicated achievements. The progress of voluntary motion is commensurate with the improvements of perception, which are the rudiments of mind, and of those nascent desires and aversions, hopes and fears, that are the attendant spirits of intelligence ;—which gradually become matured into passions and emotions ;—and which, before the dawn of reason, and too frequently even in its perfection, constitute the motive for our actions. Without some motive to action, and ability to move, our bodies would have remained stationary and quiescent ;—and these motives imply an existing intelligence, that directs the movement for the attainment of the object. *Will*, therefore, is simply the *effort of attainment*, and by whatever motive it may be urged, impels those muscles to action, that can most readily accomplish the desideratum ;—always keeping in mind, the previous training that has rendered the muscular apparatus obedient to these acts of volition. The same explanation is equally adapted to our intellectual faculties and acquirements, whether we investigate objects by the perceptive organs, draw upon the stores of the memory, form the estimates of reason,—or direct the energies of thought to particular subjects. To invest *will*, this mere *effort of attainment*, with that intelligence which is competent to direct, would render reason altogether superfluous, and legitimise all the absurdities and evil passions, that too frequently become the motives to our actions. It may therefore be inferred, from the examination of the human mind that has been instituted, that the *will*, which by some philosophers has been reduced to the mere creature of necessity, and by others dignified with originality and freedom ;—is, in fact, a nonentity :—so little intitled to an original endowment, that it has no existence in the earliest stage of our being ;—but is an acquirement, the progressive steps of which may be traced by the attentive observer. Its advancement is commensurate with our intellectual attainments, and promoted by their contingent passions :—and its influence over the moving powers of the body and the faculties of the mind, is the effect of established convention,—the result of repeated efforts and habitual training. To employ the language of metaphor, the will is the servant that equally executes the commands of the purest motives, and perpetrates the dictates of the basest passion :—it is the effort of attainment, that becomes the holy instrument to elevate our species by the noblest actions :—the mild diffusions of charity,—the glow of friendship and the ardour of affection,—the devotion to science, the fervour of patriotism, or the struggles for liberty :—and it is likewise, as motive may prompt, the degraded tool that fabricates the works of malignity—the engine of crime—the obsequious minister to the flesh and the devil.

Having already stated the nature of the will, and exhibited its influence and operation on the body and mind, an inseparable system, and only verbally disjoined for convenience and distinction, it would be a very curious inquiry, and certainly not devoid of interest, to ascertain what would be the result to our species, if the motives we conceive or are impressed with, did *not* excite those efforts of attainment, in which the will consists. Adverting first to our corporeal frame, it will be evident that it could possess no voluntary motion, the body would therefore be stationary and inert, and our fellows being in the same condition, could render us no assistance. We should be in the state of animal trees, and be permanent fixtures, and if excruciated by pain could experience no relief. We could receive no nutriment, excepting it descended in showers, and then only by a conjectural absorption ; nor could we command the necessary activity for the work of propagation. In considering the intellectual part of our nature, we might see, by the excitation of objects through the medium of light, and hear from the intonations that assailed the auditory organ ; but we should be unable to *direct* the eye and the ear by any adaptation to discriminate : we might feebly smell the stench that issued from putrefaction, or the perfume that exhaled from the flower : the taste would be still more indistinct, as the exercise of this sense implies the voluntary motion of the lips and tongue to distinguish, and the touch would scarcely if at all exist : yet we might be sensible of heat, and feel the shivering and pain of its abstraction ; but these are mere passive sensations, and altogether different from the delicate perceptions that the touch conveys, when voluntarily devoted to such examinations. Under such privation, the lowest, or passive state of memory might exist ; but he would be incapable of making any *effort* to recollect, which is an act of volition ; and with regard to those higher powers of the intellect, which are termed reasoning and reflection, they are wholly out of the question. With such defect of an important influence and medium of connexion, it is evident that the human race would be annihilated in a few hours; but this imaginary subject, however it might be extended for speculation and amusement, is too puerile to be further pursued. If, by assuming the converse, we were to contemplate a being wholly exempted from all involuntary endowments, which are a boon conceded to man by a superior power, and which appear, by their destined operations, to constitute life; and likewise, attribute to the same being the ultimate perfection of voluntary exercise, we should have made some progress in the definition of a deity.

Having, according to my own views, examined and defined the nature of volition, and ascertained that its influence is stimulated by motives, it is now, in order to examine of what these motives consist, that urge us to their accomplishment. To perform this effectually, would conduct to a wide field, a great part of which we have heretofore trodden.

At all the epochs of human existence, there are objects, the *possession* of which, we are persuaded will contribute to our immediate gratification or future happiness. Those among our species who have passed the middle period of life, are fully aware of the different pursuits in which they have been occupied and interested. The toys and baubles of infancy are not forgotten, we revert with delight to the gay scenes and voluptuous enjoyments of incipient manhood, and the recollection involves a regret of their too limited endurance, and the serious and more rational occupations of our riper years, are equally marked by propensities, that excite us to fulfil our wishes: all these are successively the motives that impel us to attainment, "the fair guerdon that we hope to find." According to the nature of education, which unfolds the precept, and the force of example that exhibits the model; according to natural disposition, the confirmations of habit, and the guidance of reason, these motives will be virtuous or corrupt: and the experience of those who attentively observe, will lament that the latter appear to preponderate. Such is our lust of possession,—such the seductive garb that veils the deformities of vice,—such the imbecility of our moral resistance,—and so strong the *confidence*, in the subtlety of our evasions, and crooked diplomacy, that we must cease to wonder at the motives by which we are impelled to attainment.

It now only remains to examine that question which has so much perplexed those who have devoted themselves to its investigation; and which in all probability would have been long since determined, had each party instituted the proper inquiries, by viewing it as a physiological subject, instead of straining their conclusions from metaphysical premises: this is the much disputed question of the freedom of the human will. The contest on this subject is, whether the will is free to act? Is an original and uncontrolled power, directing human actions? Or, whether the will is governed by motives, which influence and direct the action? According to the views that have been already exposed, will implies the mere effort for the execution of the movement, and which involves a conventional and established obedience. The motive or cause influencing the action, whether it be the result of a process of the purest reasoning—the determinations of caprice,—the gratification of malignant contrivance,—or the intemperate issues of immediate feeling, is an equal stimulus. During the earlier years of our existence, these motives are principally excited by curiosity, puerile interests, and the grasp of immediate possession; because at this season reason has not been sufficiently attained: and therefore the wise legislators of all civilised nations have exempted those under a certain age, from the penal responsibilities of the law. This exemption has been grounded on a fact, that the motive for the action, directing the exercise of the will, is at an early age unripe, and has not been matured by the estimates of reason: and the same principle extends to the mental imbecilities of the idiot, and to the furious sallies, or belief in delusion, that distinguishes insanity.

The ordinary education of children does not wholly consist in teaching them alphabetic characters, their composition into words and sentences, and the doctrine of numbers, but also the nature of right and wrong, good and evil,—that which is honourable, and its disgraceful opposite,—in order to fix in the mind that standard, which reason shall subsequently examine and confirm. This discipline is usually in direct opposition to the inclinations of the child, and the tutor is compelled by promises and rewards to invite compliance,—and, on many occasions, by threats and actual punishment, to enforce its adoption. Those unfortunate objects who have been taught no moral restraints, manifest the freedom of the will,—man in the most savage state of society, impelled by his appetites, his desires, and his passions, is the creature of volition:—he seizes all that is within his grasp for his immediate gratification; by stratagem from the stronger, and by rapine and open violence from the weak and unprotected. He has not been trained by civilisation and reason to regulate the impulses of desire, to suppress the indulgence of appetite, and to consider others as possessing equal rights with himself. The suicide acts from the

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Copper	64
Sulphur	16
Sulphuret of Copper	80

freedom of his will,—he is withheld by no considerations of the present, nor restrained by any hopes or apprehensions of the future. The maniac seeks the completion of his views by the readiest means, and in the pursuit of his object overturns all the barriers and impediments which the laws of God, or the authority of man, founded on reason, have interposed for security. Insanity is the purest instance of the freedom of the will, according to the ordinary acceptation of the term. But it is well understood, that to abstain from motion, and curb the impulses of desire, are equally the province of the will, and these restraints are acquirements of greater difficulty. They are both the efforts of attainment,—both constitute the motive. It is natural that the child, the savage, and the maniac, should seize the objects of gratification, and pursue the dictates of immediate feeling. But man, in his progress to maturity, begins to calculate the tendency of his actions in all their bearings and relations, and this estimate is denominated reason. On such computation, the jurisprudence of the most enlightened nations is founded, and the purest morality is erected. Thus the motives of the being enlightened by education, and trained by the maxims of philosophy and ethics, which are to be considered the institutes of reason, are motives that impel us to acts of benevolence, liberality, and friendship, and are equally free with the caprices of the child, the sanguinary wrath of the savage, or the blind fury of the madman. Yet, if a doubt should still remain, let it be painfully recollected, that the freedom of delinquency is fully established, and has too frequently disgraced the most elevated rank, and splendid talents. He who is the slave of immediate impulse, can never aspire to that dignified freedom and independence which reason dictates, and which is sanctioned by reflection.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture III.

Gentlemen,—We are now to take a general view of *chemical attraction*, and to make you acquainted with its results.

In regard to this subject, it is easy to imagine that, as the ultimate divisions or atoms of bodies are capable, as we have seen in the preceding lecture, of combining, under certain circumstances, with each other, so as to form large aggregates or masses of matter; so, in consequence of this power of attraction being exerted upon different kinds of matter, we may, of course, expect that their union will produce a new substance, and this is called chemical affinity, or chemical attraction. And in the first place I may remark, that in no one case can we anticipate what will be the result of this action: suppose, for instance, that we mix oil of vitriol and potash together, the resulting compound will not possess intermediate properties between the two, but will be found to have acquired altogether new qualities; so that it is impossible to anticipate, in any one case, what will be result of chemical attraction, and we must have recourse, in all cases, to experiment, to determine it. It is on this principle that the most useless and unpromising bodies, through their union and combination, frequently afford substances of the greatest use in the arts; and again, that the compound bodies, which are of themselves of no importance, when submitted to decomposition, yield up their elementary parts, which are often very valuable.

To give you a common instance of chemical action, let us take some sulphur and copper filings. Now if we bring these in contact, and leave them in their dry state, no action takes place; but if you add water to the mixture, or liquify the sulphur by heat, you will find that the sulphur and copper enter into chemical combination, and that a black compound results, in which you cannot detect any of the qualities of sulphur or copper, but that you have a new substance produced; and it is a remarkable circumstance, that the body thus produced has new qualities differing entirely from its components. In the next place you will observe, that when bodies act intensely on each other, as in the present case, *heat* and *light* are often generated, or, in other words, they burn; and then, again, it must be recollected, that these substances enter into combination in given proportions only. So here we shall find, that if 16 parts of sulphur be combined with 68 of copper, the result is 84 parts of sulphurate of copper; and if you were to add a greater quantity of sulphur or copper, you would find that they would remain uncombined: showing, that when bodies unite in more than the proportion, the compound is a simple multiple of the first, the excess remaining unaltered. Mr. Brande then made the experiment of first melting a mass of sulphur exceeding the proportion before named, to which a certain quantity of copper filings was added. Union of the bodies, attended by combustion, took place, but the excess of sulphur was sublimed. This experiment, resumed Mr. Brande, is connected with a very curious fact, which I may here briefly allude to: the copper and sulphur are, previous to their union, brought into opposite electrical states, and, at the moment of their combination, this electricity is destroyed; so that you have light and heat, and combustion, on the union of the component parts of these bodies.

In this case the two solid bodies, the sulphur and copper, entering into combination, retain the solid form, but chemical action is, in very many instances, attended with *a change of form.* Aëriform bodies are capable of producing solids, solids are capable of producing liquids,—liquids, solids,—and, in short, there is no end to the changes of form which result from chemical action. (Experiments were then made to show these facts, the first by mixing muriatic acid and ammoniacal gases; the second, by rubbing together crystals of Glauber's salt, and nitrate of ammonia: and the third phenomenon was shown, by mixing together concentrated solutions of muriate of lime, and carbonate of potash.) It is not necessary, said Mr. Brande, to multiply instances of this kind, and I only show these as proofs of *changes of form* resulting from chemical action.

In some cases, although it rarely takes place, this action is not attended by any very remarkable change of the qualities of bodies. In such cases, we generally speak of the body as being in a state of *solution.* What I mean is this: if I take a salt, and dissolve it in water, the salt enters into combination with the water, and you have a solution of the salt; so that the resulting compound differs but little in its leading characters, from its component parts. In other cases, the changes are more obvious—and, in others, exceedingly so. Here is a gaseous body contained in a jar over water, the water being of a blue or greenish blue, and you may see the gas above the water unchanged; you may observe, secondly, that it does not change the vegetable colour, and, therefore, the gas is neither acid nor alkaline. Suppose I add another portion of the same gas, the consequence is, a mere mixture of the two portions. You see that I have here doubled the volume of gas, but I have produced no change, either on the coloured water or gas. But if I now add another gas capable of changing the properties of the bodies mixed, you will then observe that they will combine chemically, and that certain remarkable changes will take place. You see the water rising very rapidly in the tube; so that you see, that the body we have now formed is, in the first place, soluble in water; 2dly. You may remark, that the vegetable blue colour is perfectly destroyed, and converted into a red colour; 3dly. The gases which were before colourless, are now become of a deep orange colour; they were tasteless before mixture, but now they have acquired an acid taste. These gases, you observe, are oxygen and nitric oxide. Changes of this kind, in the state and form of bodies, are continually going on in nature, and in the arts; indeed, the great processes of nature, such as the vegetation of trees and plants, and the phenomena of organic life generally, are connected with a series of chemical changes. We see that the inert and apparently useless matter of the soil, is converted by vegetables into new products. In the animal kingdom you observe, that the food is digested and converted into blood and other substances, exhibiting so many chemical changes, controlled by the influence of vitality; and although out of the power of art to imitate, they are still subjects of chemical investigation. You will now observe, how impossible it is to reason, *a priori*, what will be the result of chemical action; it must always be ascertained by experiment.

It is not necessary to go much more fully into the subject at present, but a few familiar instances of chemical change may be adverted to. If you combine sulphuric acid, which is a very powerful and caustic substance, with caustic potash, also a powerfully acting body, the result is a *sulphate of potash*, of which you might swallow an ounce without mischief; whereas a small quantity of either of its component parts would do great injury. The sulphuric acid, or oil of vitriol, powerful as it is, is a combination of two inert substances, sulphur and oxygen, with a little water; and you have a very caustic body resulting from the combination of inert materials, the converse, you observe, of the former case.

It may be worth while, probably, to call your attention to another result of chemical action, which is *change of colour*, because we often resort to this phenomenon for the purpose of ascertaining the nature of certain bodies. Here, for instance, is a vegetable infusion, which the addition of a drop or two of acid, you perceive, renders red, changing the green to that colour. Now if I add a small quantity of an alkali, I shall again produce a green colour, the red disappearing, and it is easy, by adding another substance, to destroy the colour entirely, namely, a solution of chlorine. We therefore use, in chemistry, vegetable blues and greens, with a view of detecting the presence of alkalies, acids, and other bodies; and we shall show you these experiments, since the knowledge of these changes bears very much upon the arts, and indeed the whole art of calico printing and dying depends upon the knowledge of the relative action of colouring bodies. (The experiments were then shown.)

When bodies combine chemically, their *specific gravity* is altered; usually it is increased, the density of the compound being greater than that of its component parts. You see instances of this in the combination of sulphuric acid with water, or of spirits of wine with water; they suffer a diminution of bulk, and consequently an increase of specific gravity. Now here is a tube containing two fluids, water and spirits of wine, the alcohol is now uppermost, and no change takes place; but if I invert the tube, the water will pass through the spirit, because the spirit is the lighter, and the two fluids will combine, which will produce a considerable increase of density, or a diminution of bulk, the terms being of course synonymous. (The experiment was made, and the fluids, when mixed, were seen not to occupy so much space in the tube.) Why then here again is a manifest necessity of experiment in cases of this kind. Take water of a specific gravity of 200 and spirit of 100, you might suppose that the specific gravity of the mixture would be the mean of the two, namely, 150; but experiment shows you that it is greater. When oil of vitriol is mixed with water, the increase in density is much more remarkable, and the heat generated is so great that there is a risk of breaking the vessel. (Mr. Brande then directed the attention of the class to the tube in which the spirits of wine and water had been previously mixed. You perceive, said Mr. B., that a great diminution of bulk has taken place, and this will go on for thirty hours, probably; that is to say, that time will be required before the fluids will have reached their maximum of density; and we may observe here, in passing, that the ill effects attendant on the drinking of brandy and water, rather than of wine, is principally owing to the imperfect mixture of the alcohol with the water; when you drink brandy and water in this state, you drink a larger quantity of pure alcohol than if you were to wait until a more intimate combination had taken place.)

Mechanical attraction is opposed in all cases to chemical, as you might suppose. The power which holds bodies together often prevents their chemical union; and you will recollect then, in the experiment made with sulphur and copper filings, it becomes necessary to liquify the sulphur before any chemical action can be exhibited, or, in other words, to *lessen its cohesion*. Here is chlorine gas, which has a strong affinity for the metal antimony. If I put a lump of the metal into the gas, it will be acted upon superficially by the gas, but the two will not combine with any energy.—Now you observe, that if I powder the antimony and introduce it in that state into the gas, it will immediately take fire and burn with great intensity; hence pulverisation is often a necessary step to produce chemical action. The old chemists had a great notion respecting the axiom of Boerhaave, "that bodies cannot act upon each other except in a state of solution;" but the explosion of bodies, of which we have recently had such a dreadful specimen at the Post-office, is sufficient to explode such opinions. Solution does, however, favour chemical action by the minute division of the particles to be acted on. We may instance the common soda powders, composed of carbonate of soda and tartaric acid, as showing the action of solution in producing chemical change; you may mix them together, and as long as they are kept dry no change will take place, but place them in water, their ultimate particles come into contact, and they combine chemically. *Heat* is of course a power capable of diminishing the aggregation of bodies, and therefore a powerful agent in facilitating chemical action.

Having thus noticed the principal circumstances concerned in the production of chemical change, I shall now endeavour to explain a few terms which have been introduced into chemistry, in reference to attraction generally.

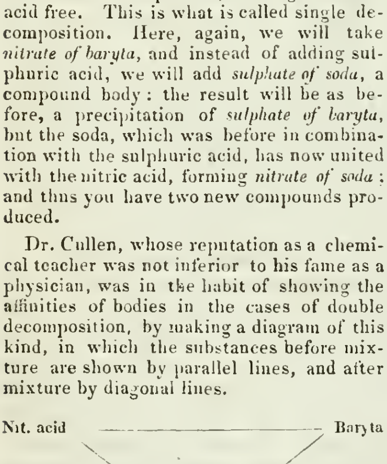
You have no doubt heard of the term *elective attraction*, a term introduced by Bergmann, and now frequently employed. If you mix together the two earths, lime and magnesia, with water, and pour a little dilute nitric acid upon the mixture, you might imagine, that inasmuch as lime and magnesia are both soluble in nitric acid, that the acid would take up equal portions of the two earths; but that is not the case: it will first dissolve the lime, then if there be an excess of acid, that excess will combine with the magnesia. This may be explained, by supposing that different bodies are possessed of different attractive powers, and we may say, in simple terms, that the nitric acid has a stronger affinity for lime than magnesia. Now if you add to such a mixture of the earths sulphuric acid, the reverse will happen. It has been customary in chemical works to give tables of elective attraction, and although they are of no great use, and are not always to be depended upon, yet they are often convenient in assisting our processes. Here is a table showing the affinities, as they are called, of sulphuric acid, for the different substances named, which are nearly in proportion to their numerical arrangement:—

Sulphuric acid.

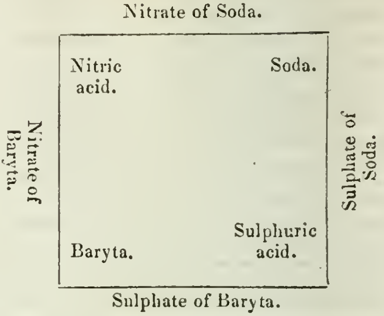
Baryta
Strontia
Potassa
Soda
Lime
Magnesia
Ammonia.

Now if you have a compound containing sulphuric acid, which you wish to decompose, the table will instruct you as to the manner of doing it. Supposing that you have a solution of sulphate of soda, the table shows that it will be decomposed by potassa, strontia, and baryta; or if you have a sulphate of ammonia, it will be decomposed by magnesia and lime. Then there is a term which has been introduced, which is *single* and *double decomposition*; a term liable to many objections, but still it remains in use. I have here a solution of *nitrate of baryta*; I add to it a little *sulphuric acid*, and the consequence will be, that the sulphuric acid will take the baryta from the nitric acid, and will fall down in the shape of an insoluble powder, leaving the nitric acid free. This is what is called single decomposition. Here, again, we will take *nitrate of baryta*, and instead of adding sulphuric acid, we will add *sulphate of soda*, a compound body: the result will be as before, a precipitation of *sulphate of baryta*, but the soda, which was before in combination with the sulphuric acid, has now united with the nitric acid, forming *nitrate of soda*; and thus you have two new compounds produced.

Dr. Cullen, whose reputation as a chemical teacher was not inferior to his fame as a physician, was in the habit of showing the affinities of bodies in the cases of double decomposition, by making a diagram of this kind, in which the substances before mixture are shown by parallel lines, and after mixture by diagonal lines.

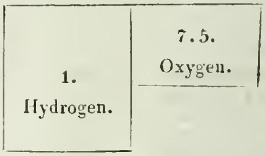


Here is one of these tables as modified by Bergmann, in which the actions of the compounds are more accurately shown. The bodies before mixture are on the outside of the perpendicular lines; their component parts within them, and the resulting compounds on the outside of the horizontal lines:—



We might multiply instances of this kind, but these will be sufficient to show you what is meant by single and double decomposition, as well as to afford you an explanation of the uses of the tables of Cullen and Bergmann.

Now in concluding this general view of chemical attraction, we must go back to an axiom we laid down at the commencement, namely, that bodies unite only in *definite proportions*, and therefore I have to call your attention to a doctrine which has been called the *atomic theory*, which has been mixed up with a good deal of rigmarole and hypothesis, but which it will be most useful to consider as an independent collection of facts. In order that you may the better understand it, I shall mention a few examples. In the case of the experiment made in the early part of the lecture with sulphur and copper, we had occasion to remark, that a given quantity of the one united with a given quantity of the other, and it was seen that it was impossible that they could combine in any other proportions than those which were found to exist. The same thing holds good in all chemical compounds; a certain weight of one body combines with a certain weight of another; or, if these bodies be gaseous, one volume of one gas combines with a given volume of another, and it is necessary at the outset of the inquiry not to perplex the doctrine of volumes with that of weights, but to remember that they are independent of each other. Here is a tabular representation, exhibiting two volumes of hydrogen and one of oxygen.



Now so much for volumes; but the weight of oxygen in this compound, supposing the

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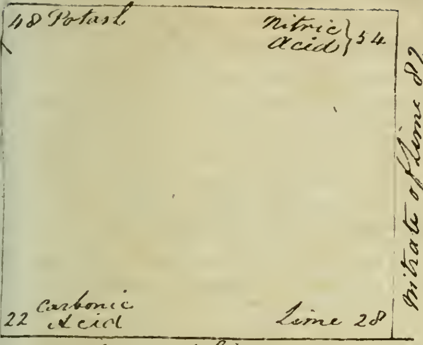
Nitre 102



Carbonate of Lime 50

Mercury combines & has a tendency to combine with the following Metals in the following order

1 Gold
2 Silver
3 Tin
4 Lead
5 Bismuth
6 Platinum
[illegible]
7 Zinc
8 Copper
9 Antimony
10 Arsenic
11 Iron

Potash 70 parts combine with Carbonic acid 32 do also do 64 do being two Proportionals as you find Lead forming Oxides

Lead	104	protoxide
Oxygen	8	
Lead	104	deutoxide
Oxygen	12	
Lead	104	peroxide
Oxygen	16	

Considering Hydrogen as unity we have the following table

1	Hydrogen
7.50 or 8	Oxygen
12	Phosphorus
14	Nitrogen
16	Sulphur
36	Chlorine
40	Potassium
104	Lead

is the definite proportions
in which the combini

volumes to have been equal, to the weight of hydrogen, is as 15 to 1. But inasmuch as they combine in different volumes, and the combination just shown is that which forms *water* consisting of two volumes of hydrogen to one of oxygen, it will be seen that their combining weights will be as 1 to 7.5, or speaking in round numbers, as 1 to 8. Now if you remember the numbers of these gases, hydrogen being the lightest body known, and therefore assumed as unity or 1, and the half volume of oxygen being eight times as heavy, is therefore called 8 ; and if you remember that these proportions constitute water, you will have water represented by 9 ; which under all circumstances will contain 8 parts *by weight* of oxygen to 1 of hydrogen. If you choose to speak of *volumes*, you will remember that water is composed of two volumes of hydrogen to one of oxygen, or, in other words, of one volume of hydrogen to half a volume of oxygen, as represented in the table. We say, therefore, that 9 is equivalent or representative number of water. *Muriatic acid* is composed of one volume of chlorine 36, and one volume of hydrogen 1 ; because chlorine is thirty-six times heavier than hydrogen: they unite to form 37 parts by weight, of muriatic acid. The relative *weight* of hydrogen to the chlorine in the muriatic acid, although equal in *volume*, is as 1 to 36, and we therefore call the equivalent of muriatic acid 37.

If you ask why we assume hydrogen as unity, the answer is, that hydrogen is the lightest body in nature, and all compound bodies will be found to be simple multiples of its number ; and it happens that all bodies in respect to it are found to be represented by *whole numbers*. For the discovery of this interesting fact we are principally indebted to Dr. Prout. In my "Manual of Chemistry," I have adopted the tabular method of representing the relative numbers of different bodies, and I believe that they will be found to be accurate. There is one circumstance which I must point out to you, which is, that when bodies unite in more than one proportion, the resulting compounds are always found to contain simple multiples of one of the first, as I stated in the commencement of the lecture. For example, lead combines with three proportions of oxygen ; lead being represented by 100, combines with the proportion of oxygen represented by 8, forming the first compound ; it combines again with a proportion and half of oxygen, 12 ; and the third compound consists of lead 100 and oxygen 16.

[Mr. Brande exhibited several tables illustrating this fact.]

When talking of the definite proportions in which bodies combine, and of their equivalent numbers, you will have observed that we have regarded the compound bodies as made up of a certain number of principles or elements, and we arrive at a knowledge of them by experiments conducted in different ways, that is, by *synthesis* and *analysis*. I have here a crystal, being a six-sided prism; I ascertain by *analysis* that it is composed of sulphuric acid and potash ; and I find that by mixing together sulphuric acid and potash, and placing the mixture under suitable circumstances, I obtain a similar crystal: this is *synthesis*, and thus I arrive at a knowledge of the salt. Generally speaking, it is on these processes that chemical evidence rests. We are in the habit of calling such substances as are themselves compounded, separated from other compounds by analysis, the *proximate elements;* and such as cannot be resolved into other forms of matter, the *ultimate elements*, or simple bodies. Sulphuric acid and potash are the proximate elements of sulphate of potash ; but the ultimate elements are sulphur, oxygen, and potassium.

In the next lecture I shall commence the subject of heat.

LECTURE IV.

On Heat:—Its Influence as a Chemical Agent, in Art and Nature.

Gentlemen,—We are now to enter upon the subject of *Heat* ; and it will be our object, at present, merely to explain the general effects of the terms usually employed in the discussion of this chemical agent: the particular facts will be afterwards pointed out.

Heat has the power of opposing aggregation, and tends to separate the particles of bodies, so much so that some mechanical philosophers have inferred that the particles of bodies are never in contact, and that there is an interstitial matter between them, not sufficient to prevent masses of matter from retaining their form, but they say that the particles are not in contact. Be this as it may, we know that the leading effect of heat is *expansion*, and that it affects all the forms of matter ; so that by heat we find that this metal bar, which, as you see, now passes loosely through a hole in this plate, will become so expanded, when made red hot, that I shall not be able to introduce it. If I take another bar of the same size, and plunge it into a mixture of snow and muriate of lime, I find that a diametrically opposite effect is produced ; the particles of iron are brought into much closer contact, and I can pass the bar into a much smaller aperture than before. The same holds good with respect to air. If I take a flaccid bladder, and tie the end of it, and pour hot water over it, the air within the bladder becomes so expanded, that the bladder is rendered quite turgid, which again subsides when cold. Among the solids, metals are the more expansible, at the same degrees of temperature, than other bodies; but you will find that the different metals have different rates of expansion. It is difficult to measure with great accuracy, the degree of expansion which a metal undergoes; however, it may be done sufficiently, for ordinary purposes, by placing a metallic bar in connexion with an index attached to a graduated scale, elevating the temperature, and then ascertaining what change has been effected in its length. Here is an apparatus, invented by Mr. Smeaton, for the purpose of measuring the expansibility of the different metals; the bar of metal passes through a box, containing a liquid that may be heated up to a certain point, as water or quicksilver; the one end of the bar is fixed, and the other is opposed to an index, by which the expansibility of the metal is measured to the 10,000th part of an inch. You find that as the bar cools, it regains its former size. It may be well here to state to you, the relative expansibility of the principal metals, and taking them at 120,000, at 32° the freezing point, we shall find that heating them up to 212°, the boiling point of water, they will undergo the various degrees of expansion as set down in the table behind me. That table was as follows:—

Platinum	120,104.
Steel	120,147.
Iron	120,151.
Copper	120,204.
Brass	120,230.
Tin	120,290.
Lead	120,345.
Zinc	120,360.

Thus you see that the metals possess various expansive powers; and the instance of Bow Church, in Cheapside, may be adverted to as illustrating this property of the metals. The dangerous state of the steeple was occasioned by the expansion of the bars of iron used in the building of it. The stones were separated from each other by the expansion of the metal during the summer; extraneous matters were lodged between them; in the ensuing summer, the air having been more freely admitted, the expansion became greater, until at last the upper part of the steeple required to be removed, for the security of the surrounding inhabitants. I am informed that the same thing happened with the front of the Bank.

Now with regard to fluids, the difference of expansion under a given temperatnre is exceedingly great; æther expands much more readily than spirit of wine, and spirit of wine more readily than water. Now to give you some notion of the great inequality of the expansion of fluids, I may take this table, showing you that linseed oil, which at 32° we will assume to be 100,000, will, by being heated up to 100° undergo an expansion equal to 102,760; mercury would be increased only 712, whilst alcohol would afford an increase of expansion of 4,162. Now with respect to gaseous or aëriform bodies, the case is different. We have here a bladder containing air; now it matters not what kind of air is contained in the bladder for this experiment, since all gaseous bodies undergo the same rate of expansion from a similar increase of temperature. A fact of considerable importance in measuring a quantity of air. We find the steam of all vapours are liable practically to the same laws of contraction and expansion as the gases, and it has been ascertained, that if you take a 1000 parts of air at a temperature of 55° and elevate the temperature to 212°, it will become equal to 1325; this addition is making allowance for the expansion of the vessel in which the experiment was made: consequently 1000 parts of air increase 2.07 for every degree of expansion between 55° and 212°. In higher degrees of temperature the expansion becomes more uncertain; whether the expansion is so regular as that just mentioned remains to be found out. There is a circumstance with regard to fluids that I ought to have mentioned, which is that they are manifestly unequal in their expansion. If you take a bulk of spirits of wine at 37° of temperature, and add 10° of heat, you will have 47° of heat indicated; but at a higher temperature, the same quantity of heat will cause a greater expansion, and that proportionately as the liquid approaches the boiling point. That is the reason why we prefer mercurial thermometers to spirit for measuring degrees of heat, because the mercury is pretty equal in its expansion: that is to say, it is so in a greater range of temperature than spirit, because it boils at a higher degree of heat.

In consequence of this expansion of bodies by heat, you will remark one important fact connected with it, namely, that their specific gravity or density is materially affected by these changes of temperature. For instance, the specific gravity of this metallic bar will be greater at a low than at a high temperature: this fact is rendered very manifest in fluids by their undergoing a considerable increase of bulk by which of course they become specifically lighter; and again become specifically heavier as they become cold. I mention this circumstance at present because it will enable us to explain the mode of heating a vessel containing water, and also masses generally. You will find that water is a bad conductor of heat, almost a nonconductor, so that if you apply heat to the surface of it, it will be very long before the heat will penetrate the fluid; but if you

apply the heat to the bottom of the vessel you find that you can soon make the water boil, and you do this by altering its specific gravity; by establishing a current by which the cold water is brought into contact with the heated surface, until the colour is equally diffused throughout the whole. (A flask containing a coloured water was placed over a lamp to show the directions of the currents established, the heated current passing up in the centre of the vessel, and the cold currents descending on its sides. This, said Mr. B., will go on for some time, until the water begins to boil, and then you will no longer have such currents, but if the heat be continued, the water will be converted into steam.) You have seen then the change produced by heat in the specific gravity of the water by the free motion of its particles; but water is a heavy fluid, and the same thing happens in air which is a much lighter fluid, the particles of which have a much freer motion upon each other. You will understand how rapidly air may be heated, and how currents are produced and kept up in air, and if these currents could be made visible by any means, you would see the continued agitation of the air by changes of temperature. The air is a very bad conductor of heat, and therefore incapable of conveying away heat by any direct conducting power, but it becomes heated by being brought into contact with heated surfaces, and in the same way as water. You have sometimes an opportunity of seeing these currents in the air from the different refragibility of the heated and cold air; so that if you look over a slated roof in a hot day, any object in the back ground will have a tremulous appearance, and this arises from the admixture of the heated with the cool air. It is by the currents formed in the atmosphere by heat that we are enabled to warm our apartments, and if you wish to warm a room, you never think of heating the upper portion of the air. In the usual mode of warming rooms we depend upon the radiant heat of our fires for the purpose, and on the heat impinging on surrounding bodies; we often avail ourselves of this mode of conducting heat, by which heat is thrown off from bodies that may be heated, as the substance for instance of which stoves are composed. The air in contact with it is thrown off, the cold air rushes upon it, and in this way the air of a room is heated. When our object is to heat a room, radiation answers well enough; we allow the greater part of the heat to escape up the chimney, and depend upon the small quantity thrown off by radiation; but if we consulted our comfort or economy, we should adopt a different method, namely, that of ventilating the apartment by conducting heated air from stoves into it. There can be no doubt that four-fifths of the heat generated in ordinary fire places is lost to all economical purposes. In heating large houses or public buildings, the best mode is for us to depend upon currents of heated air thrown into the building from below, and allowing it to escape above; having it conveyed into the several apartments by tubes. Mr. Brande then showed a diagram of the improvements made on Mr. Stevenson's furnace for heating air, by Mr. Silvester, which he said was the best he had seen. The principal advantages of which contrivance, he said, were that a large quantity of air is admitted, that it never acquires a very high temperature, and therefore that it never has that peculiarly unpleasant smell which air that has been heated by passing through a small opening is found to acquire. With a contrivance of this kind we might throw in any quantity of air into the apartment at 70°, so as to keep the temperature regularly up to about 60°, and still have a small fire in the apartment for the purposes of ventilation. But when a great many persons are assembled it is necessary to have a good supply of air, and we should throw in first an abundant supply of moderately warm air, and then take care to have a place for carrying it away freely. If the room to be heated were thirty feet square, the cupola in the roof ought to be four feet in circumference. But now how shall we secure the exit of the warm air, and prevent the descent of the cold; the best way of accomplishing this would be to have a chamber of warm air in the roof, covered at top by a cowl, so that the opening by which the air escapes from the building should be turned from the wind. The great error into which persons fall is, that of admitting too little heated air, and of having ventilators of too small a size. I have often seen little holes bored through the ceiling for the purposes of ventilation, which would not admit of a gallon of air in a minute, especially in hospitals and poor-houses, the very places where the ventilation should be most perfect; and, I am sure, if these openings were made larger, the air in the building would be more sweet, and the inmates more comfortable and happy. This is a matter, I am sorry to say, but too little attended to; the architects of large buildings think it beneath their notice, and leave it to be afterwards arranged by the tradesmen, who know but little about it, and to do it effectually the building must be cut to pieces at a great expense and great risk of final success, whereas a little foresight would have prevented both.

I have represented that heat expands bodies, and that cold diminishes them; and that is true in all cases with the exception of water only, and that if that exception were not made, we should be often thrown into very awkward circumstances. To prove what happens with regard to water, we shall have recourse to a few experiments. In the 17th century, the Florentine Academicians were making experiments on the thermometer, and it occurred to some of them to make a thermometer with water; they did so, and they made their experiments in a freezing mixture, and they put a mercurial thermometer also into it to show the changes that the water might undergo at certain temperatures. When they came to use water, they found, that if such a thermometer were plunged into a freezing mixture, the water began rapidly to diminish in bulk when it had cooled down to a temperature of 60°, and then it went on to diminish, until the mercurial thermometer indicated a temperature of 40°. When the water had acquired that temperature, they found, to their great surprise, that the water, instead of continuing to contract, began to expand, and that to a considerable degree, so that long before it became converted into ice, it had expanded so much, as to run out of the upper part of the tube which contained it. And, in fact, if you take a water thermometer and a spirit thermometer, and put them into a freezing mixture, you will see that the water will expand as soon as it gets down to a temperature of 40°, and that the spirit, on the other hand, will go on contracting. This may be very easily shown in an apparatus of this kind. (Mr. Brande then placed a water and spirit thermometer into a freezing mixture, when the phenomena just described were distinctly observed.) Now this fact, in itself very curious, is rendered much more important by its influence on the cooling of large masses of water. In consequence of this peculiar property, when water has attained the temperature of 40° of Fahrenheit, it is at what we call its maximum of density; it has attained then its greatest specific gravity, and if we go on cooling the water, instead of rendering it heavier, as you saw was the case with all other fluids, we render it lighter, and the rate of this expansion is equal for any number of degrees above or below this maximum of density, so that the bulk of water at 32° and 48° will be equal. Let us suppose this to represent a mass of water lodged in the earth, (showing a diagram,) which is always warmer than the air in winter; and let us imagine a cool breeze blowing over a surface of water, currents will be established in it, and it will be brought down to the temperature of 40°; as soon as this has taken place, all currents will cease on its surface, because the whole mass has then attained the same temperature, and it will begin to freeze; the cold continuing, the water becomes, on the surface, lighter, and freezes, so that you have the lighter part of the water freezing, whilst the water below retains its temperature of 40°, a temperature congenial to the habits of its inhabitants. Now, as the minute ice happens to form, an impediment is furnished to any further cooling of the mass beneath; ice is a bad conductor of heat, and interposes a barrier between the warmer water beneath, and the cold air above; so that the temperature of the water remaining at 40°, is proportionably warmer than the air, as its temperature may fall below 33°. You are enabled, therefore, to get an abundant supply of water in the most severe winter, merely by breaking through the ice. Now, see what would be the consequence, if water did not expand previous to its conversion into ice, the whole mass would be cooled down to 32°, and we should be deprived of our supply of water in the winter season, and all the inhabitants of that fluid would be killed.

There is a considerable expansion of a fluid during its crystallisation, but that does not form any real exception to the rule I have laid down, since that fact depends upon the new arrangement of the particles of the matter so combining; and, it is curious, that the crystals form with such violence, as to break through great mechanical resistance; leaden pipes are often, in this manner, torn asunder, showing that the force with which water expands when freezing, must be very considerable; it has been supposed to be equal to several tons pressure, during the formation of the crystals. This expansion of water in freezing, has a very important effect in nature; for the water having insinuated itself into the crevices of the soil, or even of the rocks, becomes then frozen, and by the expansion attendant on that process separates the soil, detaches large masses of matter from each other, disintegrates them, and fits the soil for the purposes of vegetation.

In the next lecture we shall proceed to examine the thermometer, and endeavour to ascertain how far it is really a measure of heat.

FOREIGN DEPARTMENT.

ROYAL ACADEMY OF MEDICINE.

Section of Surgery.—Sitting of 16th August.

FRACTURES OF THE NECK OF THE FEMUR.*

M. Larrey made a report on a paper of M. Brulatour, Director of the School of Medicine at Bourdeaux, in which there was an account of eight cases of fracture of the cervix femoris. Sir Astley Cooper asserts, that bony union seldom or ever takes place when the fracture is situated within the capsule. M. Brulatour's cases tend to refute Sir A. Cooper's assertion; in six, permanent extension was kept up by Desault's apparatus, and a cure was promptly effected, so that at the end of three months the patients walked without lameness and without the aid of crutches or sticks, and the fractured limb was only shortened a few lines. In the seventh case, the patient died thirty days after the fracture from pneumonia; the body was opened, and the fracture presented the appearance of a red line containing a cartilaginous substance, which joined the two fragments of bone, and all the fibrous structures of the part were tumefied and in a state of inflammation. Lastly, in the eighth, the patient recovered from the effects of the fracture; but his death, which happened ten months afterwards from spitting of blood, gave M. Brulatour the opportunity of examining the seat of the fracture. Its situation was visible; it had divided obliquely the centre of the neck of the femur, which was much shorter and thicker than that of its fellow; when sawed in its whole length, the callus presented the form of an oblique reddish line, of a darker colour, and softer substance than the rest of the bone; the specimen was then presented to the meeting. M. Larrey thought that this specimen unquestionably proves that fractures of the neck of the femur may, notwithstanding what has been said, unite as completely as those of any other bones: if its union is so seldom obtained, it is because the limb is not carefully kept immoveable, and because the apparatuses for permanent extension, which are generally employed, are more fit to separate the two fractured fragments of bone than to keep them in contact. From fifteen to twenty days of perfect rest, and the horizontal position, are sufficient, as a specimen which M. Larrey presented proves, to effect this union. Sabatier, in these cases, only employs cylindrical splints, on which he places the fractured limb, recommending repose, and leaving the rest to nature.

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* Archives Générales de Médecine.—Septembre, 1827.

This report brought on a discussion; several members, MM. Baffos and Murat, thought that the greater part of M. Brulatour's cases had no character of fractures of the neck of the femur, nothing being more rare and difficult to obtain than union of these fractures without shortening of the limb, and consequently without lameness. M. Murat, after examining the specimen presented by M. Larrey, added, that it was a specimen, not of fracture of the neck of the femur, but only of contusion of the neck.

FRACTURE OF THE HUMERUS BY THE ACTION OF MUSCLES.

M. Larrey read another report on a case of fracture of the head of the humerus, which was produced by muscular action. The case was that of a young soldier, who, in a quarrel with one of his comrades, endeavoured to throw his opponent's wrist back, and thus fractured his own arm. The reporter thought this case was worthy of publication, on account of its rare occurrence. Fractures of the humerus, by muscular action only, are very seldom seen; he had once the opportunity of seeing the neck of this bone fractured from a similar cause, in a lady who, when descending from a carriage, felt the step give way, and holding firmly by one of the handles of the carriage, fractured her humerus immediately above the insertion of the deltoid.

ST. VITUS'S DANCE.

M. Lisfranc presented to the meeting a lady whom he had cured of this disease by general bleedings, and repeated application of leeches to the upper part of the spine: he had been induced to try this mode of treatment, because M. Serres had assured him that he almost always found the tubercula quadrigemina in a state of inflammation in the bodies of those persons who died of chorea. M. Serres, who was present, stated that in four cases of chorea he found the tubercula quadrigemina altered; in one case a fatty tumour was developed on them; in another, there were marks of considerable excitement, with bloody effusion at the base of these bodies. In the two last cases, the whole substance of the corpora quadrigemina was inflamed, and the inflammation extended to the roof of the fourth ventricle. The symptoms appeared to him to have some relation with an injury of this part of the brain. M. Serres tried experiments on living animals, and found that those animals in which this part of the brain was injured, had motions similar to those observed in cases of chorea. M. Rolando had also perceived this fact in his experiments. M. Serres was not, however, willing to conclude that in every case of chorea the tubercula quadrigemina are injured; he had seen several in which no injury in the brain could be discovered. As persons afflicted with this disease generally experience great pain at the back part of the head, above the region of the neck, he had been induced to apply remedies to this spot, and which had often cured the complaint in its acute state; but, when it becomes chronic, the frequent application of leeches, in the neighbourhood of the supposed seat of the disease, prove of no benefit.

ROYAL ACADEMY OF MEDICINE.

Sitting of the 21st of August.

SPOTS OF BLOOD.

M. Orfila stated that since he had read to the meeting a paper on the means of recognising spots of blood on clothes, &c., it had been published, on M. Dulong's authority, that the globules of blood, which constitute these spots, may be discovered by the aid of a microscope, and even the form of the globules be distinguished, if the spots are formed of human blood, or of the blood of animals. M. Dulong said, that this mode of investigation had been successfully used, and that the great advantage was its being applicable to the examination of very small quantities. M. Orfila wished to be assured of the truth of these assertions, and had therefore made experiments on spots of human blood, and the blood of pigeons; these spots, some of which were old, others fresh, were placed on glass, and examined by means of a microscope, both in a dry and liquid state. The result was, that far from perceiving any difference in the blood, M. Orfila could not distinguish with certainty whether it was really blood or not.

OF THE PROTO-NITRATE OF MERCURY USED AS A MEDICINE.

Dr. Sundelin, of Berlin, has called the attention of medical men to a preparation of mercury little known, from which he has derived great advantages in syphilitic and some other affections. Dr. Sundelin, condering the inconveniences attending the use of the deuto-nitrate of mercury, owing to the caustic form of the deutoxyde, prepares a nitrate of mercury in the following manner; it only contains the protoxyde:—*Take of pure metallic mercury, pure nitric acid, simple distilled water, of each one ounce; let them be placed in a cold place in an uncovered glass vessel, until crystals be formed; wash the crystals in distilled water, and keep them in a glass vessel well covered.* Dr. S.at first gives $\frac{1}{16}$ $\frac{1}{8}$ of a grain of this salt, and increases the dose, according to circumstances to a grain twice a day; he prefers it in the form of pills:—*Take six grains of the crystallised nitro-oxyde of mercury, dissolve them in a little water, add to the distilled solution, liquorice powder and mallow root, of each one drachm; let the mass be made into 90 pills.* Give at first two pills every day, and gradually increase them to sixteen. The intestinal canal bears this form much better than the sublimate, and it may be conveniently given to very irritable patients. It takes, however, a great length of time to produce salivation. It favours the secretion of the urine much more than that from the skin. It is very beneficial in secondary ulcers of the palate, exanthematous eruptions, and ulcerations of the skin produced by syphilis, diseases of the periosteum and the bones. The treatment must be accompanied by a spare diet, warm baths, mild temperature, and the use of the decoction of sarsaparilla.

PLACENTA DETACHED BY MEANS OF AN INJECTION OF WATER INTO THE UMBILICAL CHORD.—BY DR. TARONI.*

Dr. Taroni was called to a woman half an hour after delivery, and found the placenta still in the uterus, and a copious hæmorrhage from the womb. He tried in vain to extract the placenta by traction on the umbilical chord, accompanied with friction and cold applications on the abdomen. Two hours had elapsed, and the bleeding still continuing, he recollected the means advised by Dr. Mojon, and injected with some force, spring water into the umbilical vein (proposing to add vinegar if water was not sufficient); he then tied the umbilical chord to prevent the return of the injected liquid. At the end of two minutes the uterus began to contract, and the placenta was freely and easily withdrawn, when all went on well.

OF THE EFFICACY OF TANNIN IN BLEEDING OF THE WOMB.—BY DR. PORTA.

The following are the results of this physician's investigations on the use of this remedy:—1st. The tannin acts in a particular manner on the uterus, when this organ is the seat of an irritation, which causes great bleeding from the womb, and when this discharge results from a chronic inflammation of the womb. 2d, In bleeding from the womb, owing to acute inflammation of this organ, it is necessary at first to subdue the inflammation by frequent evacuations of blood, and again to have recourse to the administration of the tannin. 3d, This medicine is of no good in hæmorrhages of the uterus, which are the result of an organic alteration of this organ. Lastly, this medicine is deserving of preference over every other in the treatment of hæmorrhage from the womb, not only on account of the celerity with which it stops the bleeding, but also because it is efficacious in so small a dose, that the stomach can bear it when in the most irritable condition.

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* Revue Medicale. Septembre, 1827.

SKETCHES OF THE SURGICAL PROFESSION IN IRELAND.

No. XXI.

MR. HARRISON.

The Royal College of Surgeons in Ireland, during the year which is about to loose itself in the great cycle of eternity, has simultaneously undergone a moral and physical revolution. No less than three new names have been added, in that short period, to the catalogue of its professors; while the structure itself has expanded, as if for the reception of this important addition to its former members, into twice its original dimensions, with an incalculable increment to its beauty and accommodation. Among these alterations the succession of Mr. Macnamara (with whose merits I may one day or other make the public acquainted,) to Mr. Hewson, in the chair of surgical pharmacy, and the conversion of that anomalous fraction of the duties of the chemist and naturalist into a full course of materia medica, have turned out obvious improvements. Mr. Macnamara being attended during the last season by a numerous class, a novelty in that department of education in the college, and the certain criterion of the utility of the science, and the efficacy of the teacher. By the unanimous consent of the college, Mr. Jacob, whose portrait already adorns the pages of The Lancet, has been transferred from Park Street to Stephen's Green; and Mr. Harrison, the more immediate object of consideration, has at length, in conjunction with him, obtained the long-sought consummation of his hopes, a professorship of anatomy. Mr. Colles and Mr. Wilmot confine themselves in future to surgery, and much is, and may be reasonably, expected from their exclusive attention to a branch of the art in which both excel These movements of our surgical establishment are so far progressive with the improvements of the age; and as such are the indisputable objects of approbation, more particularly at an era when its elder contemporaries behold its rapid advances, immoveable as the index of the dial which only marks, without participating in, the motions of time. Constituted as it is at present, and with all its energies brought into full operation, it would present the most comprehensive and efficient school of professional instruction in this, I might indeed say in these, countries; and with the addition of a national hospital, there is no reason why it should not demand, and why the power should not be granted, of conferring medical as well as surgical degrees, since they will not be conceded by the legitimate source.

Various circumstances conspired to effectuate these innovations. A considerable sum having accumulated in the college treasury, (which the popular constitution of the body fortunately preserved from private embezzlement,) it was judiciously decreed to the enlargement of the plan, and the correction of the defects in the architecture, of the original building. The appropriation of such a public fund to such a national end, is at least indicative of the healthy state of the fiscal arrangements and liberal spirit of the institution; and deserves a passing tribute of approbation, as an honourable exception to the usage of other corporate exchequers, whose incomes, flowing in a full stream, are visible for awhile, but suddenly disappear by a secret absorption, like certain rivers which at once vanish from the traveller's sight in the sands of the desert. To no other purpose could property collected in the name of science be more properly devoted than to the decoration of its shrines, and increasing the facilities of its cultivation. Stone has been the universal medium on which the moral spirit of all civilised ages has impressed the image of its own majesty, and sought, by such lasting records, to perpetuate those feelings in which they originated. The progress of every country to improvement has ever been associated with public works; and the gradual rise of the arts may be traced on the map of history by the number and splendour of the temples dedicated to their cultivation. From engraving moral sentences on tablets along the highways of Attica for the instruction of its inhabitants, Athens, in a more prosperous hour and munificent spirit, taught the classic portico to rise amid the gardens of the academy, for the reception of her literature and philosophers; and until the temple of Apollo rose at the command of Rome, she had but few sons worthy of occupying its niches with their busts or productions. Such monuments, next to the creations of the mind, are the best testimonies of a nation's devotion to science, while they supply inexhaustible fuel for its lamp; for, there are few so indifferent even to external objects, as to look on the accumulated labours of the human mind in the recesses of a library, or to behold the records of industry collected in a museum, without sympathising with the spirit of the scene, and feeling some twitches of emulative emotion. For the excitement and indulgence of such aspirations such structures ever have been erected, a truth which cannot be too forcibly impressed on the founders of that which has called for this tribute to their exertions; for if it be intended only as a more magnificent sepulchre of the labours of the illustrious dead, accessible on state days through the key of some official verger, instead of being a memorial of their wisdom, the pyramids of Egypt are not a more obvious evidence of the vanity and folly of its kings, than will be this pile, a monument of the unmeaning prodigality of its possessors.

The spirit of improvement, which directed the expenditure of the funds in the manner described, also suggested, or rather approved, the proposition of the education committee for the appointment of two additional professors of anatomy and physiology. It was observed that the number of private schools lately called into existence, by the increasing reputation of Dublin, as a place of professional study, and the talents displayed by many of their proprietors, threatened to thin the benches of the theatres in Stephen's Green. It was, besides, perceived that the years and avocations of Mr. Colles, and his colleague, incapacitated them in some measure for the performance of the duties of the anatomical chair. Mr. Colles, indeed, seemed rather inclined to favour than to discourage the rumour of his anatomical infirmities; and, like those monarchs, whose early fame supports them in the inactivity of age, appeared, for some time back, more solicitous about establishing the succession in his own family, than in forwarding the interests of the commonwealth. The report favouring the accomplishment of his design, he embraced the opportunity of effecting his object; but though well prepared for the enterprise, he found it somewhat more difficult in the execution than he expected. A fact, thundered on the public ear by the twelve thousand peals of THE LANCET, cannot long remain a secret, or fail of making an impression; and it was consequently well known, through this awful medium of publicity, that Mr. Colles long entertained the paternal notion of making Mr. Harrison a *locum tenens* during the professional minority of his own son, who, I believe, is not yet released from the bondage of an apprenticeship. The influence of public discussion, if not triumphant, was at least sufficiently felt to throw the college into an attitude of opposition against the incumbrance of a dynasty; and if the system of election had been of a more popular form, and a candidate of even equal qualifications with Mr. Harrison had appeared, the result of a contest would have been far different. Mr. Ellis, however, a young gentleman of great scientific attainments, was the only individual, except a Mr. Hargrave, who presented himself on the occasion. Having received a "circular" intimation of the approaching election, and relying on the specious forms observed, and the oaths taken, by the electors, he offered himself as a candidate, quite unprepared by any of those mystic ceremonies of sycophancy, politely designated a "canvass." Though he swallowed the bait, he suspected the hook; but instead of replying, as he did, to the electors, by stating that the testimonials and representations of candidates were no tests of their competency, and that he was willing to submit to the *experimentum crucis* of an examination, as the only means of settling the question, he should have protested against being a party, even by implication, in the proceedings of a tribunal unfairly constituted. He should have known better than to sanction the measures of the court, even by a conditional acknowledgment of its right of decision; or to give the semblance of a fair competition to an election unjust in principle, and in effect long since determined at Mr. Colles's fire-side. But the result of the experiment may teach him and others, that half measures, without serving those who adopt them, only provoke further aggressions on the birthright of talent; and that compromising with a violation of principle, is, in general, as useless to the stipulator, as the faithless charm of the magician to the mariner against the storms of the eastern seas.

While the usual forms of election were preserved on the hustings, Mr. Colles had already the command of the poll-book behind the scenes; and to all who had the slightest insight into the dispensation of place, and the talents of the successful candidate for its attainment, the event of the contest could not be doubtful, for Mr. Harrison, to his high professional qualifications, unites the useful accomplishments of the man of the world in an eminent degree. He is one of those elastic, persevering votaries of fortune, whom no coolness or procrastination of the goddess can repulse from her worship. Let her fly him, or frown upon him, his sprightly physiognomy neither evinces a shade of despondency, nor his devotion one moment's intermission. Just at a time when she seems least inclined to favour his proposals, his constitutional buoyancy of spirit flows over in an effervescence of hilarity; his gay countenance brightens into a more coaxing smirk; his pace quickens into a more lively jauntiness of movement; his eloquence ripples in a more playful and brisker current, until she sinks into his arms, overcome by the patience of his suit and the obstinacy of his caresses. The assiduity with which he pursues his object knows no relaxation, or his measures to secure it any other bounds than the limits of his invention, which happens to be fertile in diplomatic resources. He glances through futurity, comprehends the contingencies of an event, still slumbering unseen by others in the womb of time, with the rapidity of his own twinkling eye, while his pliability of character bending to circumstances which it cannot resist, meets opposition at all points, and disarms it of half its hostility. His sagacity in these respects is the more admirable and effective, from being concealed from public view by a mannerism bordering on levity, and a complaisance approaching servility. A frankness of address conceals all appearance of artifice, and no pupil bowed into admiration, or spell-bound by the accents of condescension, could ever suppose that these manifestations of personal attention, led to the vulgar profits of a private dissection in a public school, or to an evening *grind* in the study at Stephen's Green. These talents, which have so powerfully aided his progress in life, seem to have developed themselves at an early period, and to complete their versatility, to have even assumed a sentimental cast; for love, that spring-board of promotion, was the salient point from which he bounded into a professor's chair. I believe it is by no means uncommon with pupils of a handsome person and aspiring turn of mind, such as Mr. Harrison must have been in the days of his indentures, to divide their thoughts between their master's library and his drawing room—to relieve the monotonous pursuits of pathology, by indulging in the agreeable reverie of securing professional patronage by a matrimonial alliance. The practice and its advantages did not escape the ken of the future professor, for during his apprenticeship to Mr. Colles, his suavity of manner and good-humoured features laid the foundation of his success in the affections of that gentleman's sister, who was pleased to lead him by the royal road of marriage to immediate notoriety. His qualifications for teaching were instantaneously discovered by the light of the nuptial torch, and as soon brought into operation by an appointment in the dissecting rooms of the College. In the capacity of demonstrator, he has continued for a series of years to the present crisis in his affairs, when, after a long course of coquetting with his hopes, the College have terminated their pets much in the manner of Julia with Don Juan :—

> " A little still she strove, and much repented,
> And whispering, ' I will ne'er consent'—consented."

His numerous friends, I have no doubt, will be grateful for having those professional excellencies pointed out, which, like those useful talents already described, his modesty may have concealed from their indiscriminate admiration ; for Mr. Harrison has had not only the good fortune of winning much personal esteem, but also of being considered a man of genius, and one of our best educated surgeons. If the possession of the highest credentials which colleges and universities can bestow be a proof of learning, he must certainly be a profound classical and medical scholar, being, I believe, a graduate in arts and a doctor of medicine of Trinity College; but of these advantages he has as yet evinced none of the usual signs, having left his admirers as destitute of evidence to maintain their meritorious faith in his transcendent perfections, as the prophet of Mecca left his followers of miracles to support their belief in his divine mission. Talent is but another name for the power of production, and the inductive philosophy of modern times teaches us to rest satisfied about the absence of a cause where an effect cannot be discovered. It is certainly drawing too freely on the kindness of his friends to afford them negative proofs only of his merits ; and ungrateful to leave them but the poor consolation of quoting from Gray,

> " Some mute inglorious Milton here may rest,"

if it should so please Providence to remove him in the present stage of his career. He is now connected for a length of time with a situation which daily reminded him of exertion, and supplied the means of professional literature ; but we are still thrown on the pleasing though perhaps futile alternative of looking forward to futurity for that fruit which has yet scarcely put forth a blossom. During a long period of probation we do not find his name among composers, compilers, essayists, or any other of the thousand appellations of literary operations, which mark the march of mind in this most wonderful of all ages. One small work indeed rejoices in his name, but its tiny form would be alike endangered by the weight of censure or of panegyric. Viewed even through the lens of partiality, it is impossible to magnify the act of reducing into a legible form, discourses which had been spoken on one branch of anatomy daily for many years, into a solid basis of professional reputation. Even this diamond edition of the dissecting room, was not hazarded before the public until cut and polished by the critical hands of the late Mr. Todd ; or without an invidious attack on the labours of his colleague, Mr. Shekelton, one of the most industrious and promising cultivators of natural science whom Dublin ever saw. If we turn from the medical literature of the day to search for records of his taste and dexterity in the museum, we shall find as few monuments of the industry of his scalpel as of his pen ; there being, I believe, scarcely a single preparation in that quarter of the College produced by his labour, or impressed with his name. It is possible Mr. Harrison might have performed all he has omitted, and that reasoning on his latent capabilities from negative data, is like attempting an analysis while the crucible is empty. Once, however, and only once, I had the pleasure of hearing him put forth his strength in a studied discourse, in which it was expected his learning would be equalled only by his oratorical powers, for which, as a descriptive anatomist, he is so justly celebrated. It was on the death of Mr. Todd. The course of lectures then in progress being interrupted by that melancholy event, Mr. Harrison was called on to complete them; the occasion naturally suggested a panegyric on the deceased, and it was consequently expected that the orator would prove himself worthy of succession by the talents displayed in the apotheosis of his friend and predecessor. The audience was certainly predisposed to indulge in emotions of sorrow, the event which called them together being still fresh on the public mind, and at all times indeed there is a strong sympathy between Pat's tympanum and his tears. Presuming on his sensibility, the Pericles of the dissecting room plunged at once into the depth of elegiac passion: epithet followed epithet; figure entwined with figure; virtue pressed on virtue; talent expanded into genius, until the immortal spirit of the deceased, decked with a rhetorical garland of all the perfections of humanity, was, by one commanding flourish of the pencil, dashed on the canvass in the act of creating the Royal College of Surgeons, and breathing infallibility into every part of its infant frame. Whether it is that the human heart is so capricious an organ, requiring such a peculiar delicacy of tact to elicit its finer tones, or that the unskilfulness of the minstrel, the antidote which his features, exhilirating grief itself like one of those cherubs that smile through the grim trappings of the hearse, supplied against melancholy, or that some inconcealable defect in his subject for eulogy prevented the signs of premeditated woe, it is certain that the conclusion of the climax excited an untimely titter through the benches, one or two laughing outright; and it is said that Sir Peter Courtenay, then engaged in the Museum, saw the bust of Dease tremble on its pedestal at the moment of the awful annunciation which transferred the glory of his labours to Mr. Todd. For the accuracy of this rumour I cannot vouch, Sir Peter being sometimes subject to superstitious indulgencies of the spirit, might, in one of his gloomy anticipations of being assassinated by the hands of a papist, have conceived, in the awe-inspiring presence of bottled monsters and ghastly skeletons, that the marble of the Popish lithotomist and founder of the college was actually rising in arms against his life. I cannot say, however, that I experienced on the occasion any of those thrills of feeling which true eloquence will sometimes produce; or discovered in the texture of his discourse any of those classical spangles with which learning supplies genius to ornament its woof. It is not, however, to be inferred, because he may not have pleased the perhaps whimsical taste and extravagant expectations of the writer, that he is not liberally educated in the ordinary acceptation of the phrase, an useful teacher of his profession, and highly endowed with the faculty of conveying his ideas on familiar topics, for nothing could be more incorrect, or more foreign to my views, than to lead my readers to any such conclusion. In medicine as in heaven there are "many dwellings," and Mr. Harrison may take up his abode in the dissecting-room as the best demonstrator in Dublin, and as far as I can collect from the most intelligent of the English and Scotch students here, perhaps in Great Britain. Whatever of anatomy is known, he unfolds to his pupils in the most minute and comprehensive manner, being, on anatomical subjects, perfectly at home; and if there be any fault in this respect it arises from a redundancy of description and a rapidity of utterance, errors which can only spring from a thorough knowledge of his duties and a perfect command over the vocabulary of technical expression.

It is not, therefore, on the grounds of any incompetency to discharge the duties for which he has been chosen, or on the supposition, that the electors did not act conscientiously in appointing him, that any objection can be made to his elevation to a professor's chair, for the court could not have selected a more efficient teacher of anatomy; but, for the obvious reasons, that a mere teacher of anatomy was not the person wanted to advance the interests of the College, that family influence had been used to secure his election, and that the system of election itself is grossly erroneous in principle. Of mere practical anatomists and anatomical stuff of every description, we have more than a superfluity. Our proverbial wealth, in this species of chattel, has long enjoyed much the same kind of vague and useless celebrity, as the mountains of Peru for their unwrought ores. Our resurrection men, the most accomplished certainly of that much-abused race, have, I believe, done as much for our fame as all our surgeons together, and Bully's Acre diffused our scientific reputation as widely among the civilised nations, as our Dublin hospital reports. By professional literature alone, we can be rescued from this poverty of authorism in the midst of abundance of intellectual materials; and it is, consequently, with some qualms of patriotic displeasure, that we see a man, not likely to remove this imputation, raised to an office which should be filled by one whose master mind, operating on our unworked treasures, would impress them with his own image, and by their diffusion bring our name into more general circulation. With still less of passive endurance can we see places, which should be filled by such men, disposed of by a system of family influence, which, if not checked in its spreading progress, threatens to exclude talent from its right, and, in its stead, to make

> "Dunce the second, rule like dunce the first."

For one, I cannot agree with Mr. Abernethy's latest theory, of breeding professors; or, of even procuring by the force of art, those qualities in a teacher which can be the fortuitous gifts of nature alone. The project, indeed, may succeed among cattle and kings—among "South Downs" and "Bourbons"—whose virtues are always hereditary; but that the best anatomical sire, though ever so perfect in all his points, can transmit his own excellencies to his progeny, "guid faith, he mauna fa that." But, as long as our present mode of election continues in operation, there is too much reason to fear that expostulation is vain, and that it will only prove the cradle of a long line of "infant anatomists." Under such a system, college, like custom-house oaths, will soon become proverbial for their violation, and a pass word of deception. But admitting even that these electors conscientiously discharge their obligations, how is it possible that they can return a fair verdict, without an examination of the parties? What man, on his oath, can affirm which of two, three, or half a dozen of candidates, of whose competency to teach he knows nothing more than from public report, or personal representation, is the most talented, or possesses the most extensive information? Impossible in effect, and blasphemous in principle, such a system arrogates the omniscience of heaven, by pretending to a knowledge of the secrets of the human mind without the human labour of scrutiny, and necessarily involves its supporters in the foul crime of perjury by presumption.

Erinensis.

Dublin, Oct. 1827.

MEDICAL CLINICAL INSTRUCTION AT ST. THOMAS'S HOSPITAL.

CLINICAL LECTURE ON AGUE, BY DR. ELLIOTSON.

The duty of delivering medical clinical lectures at this hospital, it seems, but we know not why, has entirely devolved on Dr. Elliotson. We have no doubt, that as far as Dr. Elliotson's individual exertions can go, the subject will receive justice at his hands; his zeal and assiduity in communicating every possible information to the student, are well known and appreciated. But it must be remembered that, as *only one third* of the medical cases in the hospital are placed under the care of Dr. Elliotson, the clinical information to be derived from the remaining two thirds, under the care of his colleagues, Dr. Williams and Dr. Scott, is lost to the pupils. The sum of eleven guineas is paid by the student for six months "*medical practice*" at St. Thomas's Hospital, to which three physicians are attached; and we presume that this money is paid for the purpose of seeing and obtaining clinical instruction from *all* the medical cases. But how stands the fact? Why thus; owing to the supineness and apathy of two of the physicians, *only one third* of the medical practice of the hospital is rendered available to the student. And yet, we dare say, that Dr. Williams and Dr. Scott feel no remorse—no compunctuous visitings at pocketing their respective shares of the fees. Upwards of twenty pupils have entered to the medical practice this season, and substracting the customary *douceur* to the apothecary from the sums paid by these students, about one hundred and forty guineas have been received by Dr. Williams and Dr. Scott for doing nothing. It is true that these gentlemen, *as a matter of public duty*, visit their patients twice a week, *at irregular hours*; it is also true, that the one enters his cases, for his own information, in the following lucid style, "dolor lateris, dolor capitis, ægrotat menses tres," &c.; whilst the other makes use of short-hand characters, intelligible only to himself; but neither offers any instruction to the pupil, whose money they have shared, under the implied pledge of instructing.

The following clinical observations were delivered by Dr. Elliotson, on Saturday last, to a numerous class.

Gentlemen,—I regret that illness has prevented me from commencing the course of clinical lectures on the first Saturday of the month, as advertised, also from being present when my patients were last admitted; this latter circumstance, together with my not having treated any of the patients myself more than a week, will prevent me from giving a lecture to-day on any particular case. However, I will take the subject of ague, and illustrate its history, causes, and cure, from the whole set of patients at present under my care in the house, affected with this disease. But, previously to doing so, I will offer a few remarks on clinical instruction. Gentlemen, clinical instruction is to learning the practice of medicine, what dissection is to learning anatomy, indispensable in deriving utility from lectures. It appears to me that there are five modes of clinical instruction: first, the mere witnessing of the physician's visit, and observing the remedies employed; this, I am sorry to say, is a plan too generally followed in the hospitals of this country, but I scarcely need say it is a very bad plan: secondly, in addition to the *silent* visiting and prescribing, the giving of an occasional lecture, on a particular case, is adopted by some; this is a somewhat better plan than the first, but altogether insufficient: thirdly, the delivery of remarks and reasons at the bedside of the patient, with more minute and copious information in occasional lectures; this is indeed an excellent plan: fourthly, the system, which is particularly practised in some schools abroad, where a minute history of the case is taken by certain pupils, the diagnosis prognosis, and suggestion of treatment, also written by the pupils, and these examined and corrected by the attendant physician; this mode of clinical instruction is good, but there is a chance of too great minuteness and overburthening of the case with unnecessary particulars; at any rate it requires more time than the students of this country can give, where there is so much to do in a very limited period. It is grievous to reflect upon the loss of valuable time in apprenticeships, which should be spent in learning the adjunct sciences; for if seven years are to be spent in learning the medical profession, the division of time should be just reversed—it should be, two years apprenticeship, and five years study in London. The fifth mode of clinical instruction is, where, in addition to bed-side information and lectures, the pupils are intrusted with the care of patients: however, this plan is entirely out of question in these establishments. It is my intention to adopt the third mode which I have mentioned; and I think if this system be fully acted upon, it is a very efficient plan for the *practical* teaching of medicine. I delivered clinical lectures the year before last, when this school was first established, but declined last year, *because my colleagues would not join me;* at their particular request, however, I have again consented to do it alone. Thus much of clinical instruction; now with respect to

AGUE.

There are eleven cases of ague at present in the Hospital; seven males and four females. (Here the names of the wards, and number of each patient's bed were specified.) You will here observe the greater frequency of this disease in males; in the three last years, I had forty-two cases of ague under my care, and only three of these were females. In the course of eleven years Sir Gilbert Blane had, in this hospital, 192 cases of ague, and thirty-three only were females. This circumstance is attributable to males being more exposed to the causes of ague, than females. In these cases you will remark all the different symptoms and stages—the cold, hot, and sweating fits; the different *types* of intermittents, too, will be well seen. Seven were quotidian, and four tertian; one was a quartan, and then became a tertian afterwards; the quartan type is always most rare. There are occasionally longer intervals than a quartan, and sometimes shorter intervals than a day: last spring there was a case of *septan* ague in this Hospital, and a case of *double tertian,* in which the patient had two fits every other day. The *change of type,* which intermittents undergo, is another point worthy of your attention, and is well illustrated by the cases in the Hospital; tertians may become quotidians, and *vice versa,* and both quartans, and *vice versa.* With a patient in George's Ward the ague was at first tertian, then quartan, then quotidian: a patient in Ann's Ward had tertian ague for five weeks, it then became quotidian. Sometimes there is an irregularity or deficiency in the stages; occasionally no cold fit, and at other times no sweating: there is a case in Isaac's Ward, in which the man had no cold fit. Shenkius relates a case where the three stages were reversed, beginning with sweating and ending with shivering.

There is no rule for the hour of invasion. Cullen, and those he followed, say, that quotidians occur in the morning, tertians at noon, and quartans in the evening. However, this is quite unfounded; the cold fit in the case of tertian in Isaac's Ward, came on sometimes in the morning, and sometimes in the evening; and with the case of quotidian ague, in Edward's Ward, it first occurred at three p. m., and latterly at midnight. The peculiar countenance in this disease is well illustrated in the cases now in the Hospital; it is of a straw colour, from a clear and light to a dark and dirty straw colour; and you will also observe the combination of internal disease with some of the patients: in two in George's Ward, hepatitis was also present. The liver, spleen, lungs, or head, are often affected; but the liver and spleen are the most frequent seats of disease, and the latter viscus often becomes enormously enlarged. Jaundice is common with ague, of this we had lately an instance in George's Ward; anasarca often occurs, independent of visceral obstruction; and rheumatism is sometimes present with ague, although it more frequently occurs afterwards, which induced the old writers to assert that the bark had got into the bones.

Agues become continued fever, if the causes of continued fever are also applied, and not otherwise. The return of ague from particular causes is well illustrated by these cases in the Hospital; the east wind, with cold and wet combined, are the most common causes. There is a case in King's Ward in which the patient was cured, and the ague returned when the man got wet. The next point of information to be deduced from the cases under consideration is—that ague attacks all ages; of the eleven patients in the Hospital, five are of one family, a father, mother, and three young children. I have often seen it occur in children at the breast; it has happened at birth, and often before birth. Dr. Russell, the author of the History of Aleppo and the Plague, has related a case in which the mother had tertian ague; the child *in utero* shook on intermediate days, and both were cured by the mother taking bark. The child was cured one paroxysm earlier than the mother. The cases also illustrate the *cause* of agues; all the patients came from marshy places, three from near Whittlesea-mere, seven from Kent, and one from near Tower Hill.

The great increase of disease is shown by the cases. Before last year I never admitted more than about twelve in the whole year, but last year I admitted forty-four cases, and this year I have already admitted sixty cases. Formerly, ague raged like a plague, in London, and in 1558 the dead were so numerous that the living could not bury them. Sydenham says, that ague was the most fatal disease in London from 1661 to 1665. The fire took place in London in 1666, after which it was rebuilt, and probably from being better drained, ague became less prevalent; the further improvements in draining have gradually reduced ague, yet weather which favours miasmata will always cause an increase as at present, and as from 1677 to 1685, when, as Sydenham tells us, ague revived; and from 1751 to 1754, as remarked by Dr. Fothergill.

The improvement which has taken place in the treatment of ague is very remarkable. *All* the cases to which I have referred in this Lecture are cured. Formerly great numbers died; Oliver Cromwell and James I. fell victims to this disease. I have had nearly two hundred cases of ague under my care, all of which have been cured by the exhibition of the sulphate of quinine. The usual dose is from three to five grains, three or four times a day; but the best mode is to give a large dose (*ten grains*) as soon as the paroxysm is over, and this will cure the disease at once; it is best afterwards to give smaller doses every six or eight hours, by which means we ensure a permanent removal. Sometimes the ague will not yield to less than thirty grains in the twenty-four hours, and this is the utmost extent to which I have prescribed quinine. There is a case in Ann's Ward in which a woman had quotidian for several weeks, and it was cured by one large dose of the quinine. I have no hesitation in affirming, that if quinine ever fail, it is because it is not given in sufficiently large doses, and not frequently enough repeated. Bark, after getting fame lost it, till Sydenham ventured to give it in large doses, and thus (although he was called a daring quack by his brethren) re-established its use. It is true that small doses of the quinine will often stop the disease, if very mild, and especially if the patient be removed from the unhealthy spot; but there is no reliance to be placed on them, or indeed upon any doses, unless continued for some time (a fortnight or three weeks) after the disappearance of the symptoms, precisely as is the case with syphilis, the secondary form of which, after mercury, occurs commonly when mercury is relinquished, as soon as or soon after the local symptoms disappear. For as the morbid state of the system exists in both, before symptoms arise, so does it continue after the symptoms have disappeared. A fresh exposure to the miasma cannot but be expected to bring back the disease, as much as a re-application of venereal virus will produce disease after the perfect cure of syphilis. In conclusion, Gentlemen, I would remark to you, that many of the cases of ague which I have treated were combined with severe internal inflammation, and with visceral affection; but these offered no impediment to the cure of the disease by the quinine. There is a patient in King's ward who laboured under hepatitis with ague; he was cupped, &c. and quinine given at the same time, and both affections were thus cured together: so with a man in George's ward, who had hepatitis with jaundice. There is an old proverb that "Ague in spring is fit for a king," and Boerhaave says that agues lengthen life—"ad longævitatem disponunt." However, this is erroneous; agues should always be stopped immediately, for they certainly do shatter the constitution, and if other affections co-exist with ague they yield more readily if the ague be cured, and the quinine, which cures it best, interferes with no other measures.

LONDON MEDICAL SOCIETY.

Monday, October 22d.

Dr. Shearman in the Chair.

The minutes of the preceding evening having been read, and the names of visitors announced, Dr. Burne commenced the discussion by reading from a paper some observations on *Retention of Urine and its Consequences in cases af Adynamic or Typhus Fever.* He said that there were two conditions of the bladder which occasionally happened in fever, and to which especial attention should be paid—the one was when, with a general relaxation of the muscular power, the bladder in common with other parts lost its tone, and the urine flowed away unconsciously; this was to be regarded as an indication of alarming prostration. But sometimes the calls of nature to empty the bladder from the general loss of sensibility in fever were not perceived, or not attended to by the patient, and the bladder becoming enormously distended, then retention of urine and its consequences ensued: the ureters and pelves of the kidneys became loaded, the secretion of urine was diminished, and effusion into the ventricles of the brain usually took place. In the latter stages, that is, when the bladder had been fully distended for some time, a partial flow of the urine might happen, and this circumstance Dr. Burne noticed as one liable to deceive the medical attendant. These cases required relief from the introduction of a catheter, and this Dr. B. said must be different from common cases; there was no aid derived even from the abdominal muscles, and the bladder was to be emptied on the simple principle of hydraulics, as in a lifeless body. Dr. Burne related two cases of retention of urine occurring during the progress of fever; with the one case, occurring in a man, the catheter was introduced as the patient was lying in bed, and little or no urine was obtained; the case ended fatally, and upon examination the bladder was found greatly distended, and there was extensive effusion in the ventricles of the brain. In the second case, which happened in a young lady, and also proved fatal from ventricular effusion, the patient was placed on her side at the edge of the bed, and then turned upon her belly, and in this manner the urine flowed. However, the lady sunk soon after removing the excitement, a circumstance which Dr. B. remarked was common in the tapping of ascitic patients, and also in the latter stages of peritonitis, where the abdomen was tympanitic, when the patients very speedily sunk after the bowels were freely relieved.

Mr. Lloyd considered that pressure above the pubes was at all times sufficient for the emptying of the bladder; he thought it was unnecessary to disturb the patient so much as to place him upon his belly, and indeed he did not think that according to the principles of hydraulics simply, that the turning of the patient upon his belly was the best method of emptying the bladder, the urethra not being then in the most depending situation. With respect to the effect of retention of urine, as stated by Dr. Burne, namely, effusion into the ventricles of the brain, Mr. Lloyd said he had examined many cases of retention of urine after death and had not found this result, and he believed that in the cases related by Dr. Burne the effusion in the ventricles of the brain was the cause of the retention of urine, and not the converse, as Dr. Burne had stated.

Dr. Burne replied to Mr. Lloyd, by observing that in common cases of retention of urine as from stricture, the patients did not die with the bladder full, this symptom being attended to, whereas in fever it was overlooked. That effusion in the ventricles of the brain might produce retention of urine, he did not deny; but in the two cases which he had related the effusion was confined to the ventricles, there was none under the arachnoid. He had examined no case of fever fatal from effusion, in which there was not effusion under the arachnoid membrane, nearly equal in quantity to that contained in the brain. With respect to pressure above the pubes being sufficient to empty the bladder after the introduction of the catheter, he would observe that in one of the cases which he had spoken of, (he could not speak confidently of the other) pressure was had recourse to, but without effect.

Mr. Lloyd said that his observations particularly applied to cases of retention of urine following injury to the spine.

Mr. Callaway entirely concurred with Mr. Lloyd as to the efficiency of pressure above the pubes in emptying the bladder; he thought that Dr. Burne should have noticed the paralysis of the bladder in cases to which he had alluded, as arising from over distention of that viscus, and not from a general failure of muscular power. He hoped that such cases were not frequently seen as the sequelæ of fever, for he thought it an odium on the medical attendant not to discover the retention of urine, and relieve it in an early stage.

The president, Dr. Shearman, said that it was important to ascertain whether the effusion in the brain arose from ischuria vesicalis or from ischuria renalis; it was his own opinion that it did not arise from the former, but in those cases where the secretion of urine was stayed, it would seem that the surface of the ventricles performed a vicarious office with the kidneys, and fluid having an urinous smell was secreted. Dr. Stewart inquired whether the fact of a vicarious secretion was well established? To which Dr. Shearman replied, that Sir H. Halford had related a case in the Transactions of the College of Physicians, and he himself had seen one or two cases which he thought established the point.

Mr. Lloyd doubted the fact of urine being secreted in the brain, he should as soon expect bile to be secreted. He thought that the urine was first secreted in the kidneys, then taken up by the absorbents, and ultimately deposited in the brain.

A Member called the attention of the Society to the remark of Dr. Burne, that a distended bladder produced a diminished secretion of urine; now, whatever cause produced this, it was, he thought, manifest the effect would be the same. If the abdomen were highly tympanitic, as in the latter stages of fever, he could readily conceive that pressure above the pubes would be insufficient to empty the bladder.

Mr. Proctor admitted there were many cases in which position favoured the exit of urine from the bladder; in some diseases of the uterus, the patient urinated with more freedom when placed on the knees in bed. He could not suppose that the cases of retention of urine to which Dr. Burne had alluded were very frequent, for he thought the same cause which relaxed the expelling muscular force of the bladder, would in the same proportion deprive the sphincter muscle of power, and the urine would flow away involuntarily. The cases related by Dr. Burne, he thought died from fever, and not from retention of urine; he would ask Dr. B. what distinct proof there was that such was not the case?

Dr. Burne replied that the man had died unexpectedly, and was found on examination to have his bladder enormously distended; in the second case, of the young lady, a fresh train of symptoms came on after irregularity in passing the urine. He had remarked, that this patient died soon after the excitement of a distended bladder was removed, and this was frequently the case where the abdomen was tympanitic in the latter stages of peritonitis or puerperal fever. Hence probably turpentine, and other stimulating purgatives, were useful in such cases.

Mr. Callaway said that Sir E. Home had related some cases of stricture where the bladder was greatly distended, and being unrelieved, the ureters, pelves, and infundibula of the kidneys, became enormously dilated: these patients died of serous apoplexy, and it would appear that here was a vicarious action with the kidneys. He had read a case in some Journal, where the patient died from excessive gin drinking, and a fluid was found in the ventricles of the brain, having the smell and taste of gin.

A Member said that the case alluded to by Mr. Callaway, was under the care of Sir A. Carlisle at the Westminster Hospital—the fluid found in the ventricles certainly did taste of gin.

Mr. Waller thought that the fact of gin being found in the brain in these cases, from analogy, proved the truth of the doctrine of absorption with respect to the urine. He remembered that when he attended Dr. Currie's Lectures, the Doctor was in the habit of saying, that some old women took so much gin that it could not pass off, but was absorbed and carried into the system, and if a candle were brought near them, "they would catch fire," He had been called to draw off the urine in many cases of partial paralysis of the bladder, following tedious and difficult labours, and had always found pressure above the pubes sufficient to empty the bladder, although in many cases the abdomen was tympanitic.

Mr. Lloyd thought that the act of frequent and violent straining in cases of stricture, occasioned a determination of blood, and this accounted for the cerebral symptoms. Suppression of urine, he contended, was not a necessary consequence of the ureters and kidneys being distended, for there were cases on record, in which large quantities of urine were secreted, although the kidneys had become dilated to a mere bag.

Dr. Burne asked how it was that in cases of constipated bowels, as frequently occurred in females, "*straining*" did not induce serous effusion in the brain. He thought there was no case on record of absorption of the kidneys, except where there was a continued and permanent opposition to the passage of urine. He was satisfied that a great sympathy existed between the brain and urinary organs; he had seen two cases lately where the patients experienced violent pain at the back of the head, during a lessened secretion of urine; but the pain was removed with the restoration of the secretion.

Dr. Blick said, that retention of urine would not produce enlarged ureters and dilatation of the apparatus of the kidneys, because when the bladder was distended to the utmost, then absorption of the urine took place. And he said that Mr. Abernethy was of opinion, *there was no necessity even for passing a cathether, as the bladder became relieved by absorption!*

Mr. Lloyd *warmly* denied that Mr. Abernethy held or expressed such an opinion as had been stated by the previous speaker. Mr. Abernethy had said, that in a healthy state the bladder would not burst, but that inflammation came on, then sloughing and ulceration, and an opening was formed. He, Mr. Lloyd, would ask why, if Mr. Abernethy had thought the bladder would relieve itself, did he write upon the best mode of puncturing the bladder, and why he had practised this operation in so many cases.

Mr. **Callaway** said, that he was not satisfied as to the proof of urine being absorbed. Mr. Calloway related an experiment of Sir A. Cooper on the spirit of turpentine: he immersed his arm in a jar of this fluid, which was placed on the outside of the apartment, so that he (Sir A. Cooper) could not possibly receive any portion by inhalation, and the result was, that the urine did not smell of turpentine; from which Sir Astley inferred that turpentine was carried into the system by inhalation.

The absorption of urine was contended for by Dr. Burne, and again by Dr. Blick; the former observing that the absorption of bile, after its formation, and impediment existing to its passage, was analogous. A short discussion ensued between Mr. Gossett and Mr. Lloyd, on the enlargement of the kidney—as to whether the kidney was simply enlarged and attenuated, or whether its cortical substance was in part actually absorbed.

In conclusion, Mr. **Callaway** related a very interesting case, which he said had lately occurred in the practice of a friend. The patient was a female, who had passed no urine for several days; she had a large tumour at the lower part of the abdomen, which was supposed to be the bladder distended; repeated attempts were made to pass the catheter, but all were unavailing; there evidently being something firmly pressing on the meatus, and impeding the passage of the instrument. The poor woman died on the following day in a comatose state; and upon examining the body, there was found to be most extensive carcinomatous disease of the uterus and parts adjacent, so that a large tumour was formed, occupying the whole cavity of the pelvis, and pressing upon the ureters, so as completely to impede the passage of the urine. The ureters above this were enlarged so much, that the finger could readily be introduced; the pelvis of each kidney was also enormously dilated, as well as the infundibula; the cortical substance of the kidney gone, and merely a capsule left. There was very extensive effusion into the ventricles of the brain: the patient had for some time complained of pains in the loins and down the thighs, and was supposed to have disease of the womb. The bladder was empty, and very much pressed upon by the tumour.

WESTMINSTER MEDICAL SOCIETY.

The first meeting of this Society took place on Saturday evening, and was very fully attended. Dr. Webster in the chair. After a variety of private business had been gone through, and the election of office-bearers for the present session concluded, Dr. Milligan briefly related the history of two cases of enlargement of the spleen, which was so much increased in size, as to extend from the cartilages of the false ribs to the hypogastric region, and where a tumour also existed in the right side of the abdominal cavity, apparently from the swelling of the mesenteric glands. These enlargements were the result of remittent and intermittent fever, under which the children had, for some time previously to his visiting them, laboured. In these cases, after he had failed in reducing the bulk of the swellings by the use of calomel and other means, he had found the greatest benefit from the employment of iodine, which he administered in the form of tincture three times a-day. This medicine, which seems to have so wonderful a power in reducing every diseased or even healthy structure, and more particularly when of a glandular nature, of which he conceived the spleen partook, had produced a rapid absorption of the tumours.

A trivial discussion then took place, as to the propriety of denominating the spleen a *gland*, and in how far it differed in structure from the thymus, whose use, like its own, was altogether unknown.

Dr. **Sigmond** observed, that the term was derived from the ancient physicians, who applied it to any part of the human body resembling an acorn or a nut, and that Celsus most particularly applied the word "*glans*" to the spleen.

Mr. **Mayo** called the attention of the Society to two interesting cases of injury of the vertebral column, at present in the Middlesex Hospital. In the most severe of these, the patient had fallen from a great height, and struck his back against a plank, and immediately after the accident, had been deprived of the powers of motion and sensation in his lower extremities. On examining the spine, the spinous process of the ninth dorsal vertebra was found to be projecting two or three inches beyond its proper level, a circumstance which induced him to believe, that a fracture of the body of the vertebra had been effected, in which case it was probable that the spinal marrow must be very much compressed, and perhaps reduced to that state of fluidity which he had often found in similar instances, which resembled a mixture of blood and starch. By the accident, paralysis of the bladder had been produced, which rendered the use of the catheter necessary. The case is, at present, going on well; but as inflammation of the spinal marrow and its membranes must have been produced, and be still continuing, its issue must be considered to be very doubtful. In the mean time, however, the paralysis was less complete, as he now felt his limbs warm, and that they were appended to his body. In the other case, the injury which had been applied to the superior portion of the sacrum, was of a much less violent nature, and had produced symptoms of a less severe, though of a similar character.

Dr. JAMES JOHNSON thought, that the first case might, perhaps, turn out, from the great projection of the spinous process, and the consequent displacement of the body of the vertebra, to be one in which the spinal canal is completely obliterated, which would be a fortunate occurrence, as only two cases of the kind were on record, where patients had survived such an injury.

Mr. LAMBERT begged to remind the Society of a case of a similar kind, which had occurred in Guy's Hospital under the care of Mr. Key, where the tenth dorsal vertebra had been fractured and much displaced, and where extension had been employed for the purpose of reducing it to its proper position, a practice which had been a good deal ridiculed in the Borough. He also called the attention of the Society to a curious circumstance in the history of injuries of the spine, viz. the frequent occurrence of disease of the bladder, and other urinary organs. In about twenty cases which he had seen of death from injuries of the spine, in all of them, inflammation and thickening of the coats of the bladder, and the production of ammoniacal urine had occurred, and, indeed, the patients appeared to die from the disease of the urinary organs.

Mr. DILLON did not think the ammoniacal state of the urine, a necessary consequence of disease or accidental injury of the spine, having seen cases where it did not exist. From having, in many instances, in cases of retention from strictures, and other causes, where there was no disease of the spine, found the urine strongly impregnated with ammonia, he was inclined to think that the presence of the alkali was more to be attributed to a decomposition of the secretions in the bladder, from it being allowed to remain there too long, which he feared was too often the case, than to any influence of the injury over the functions of the kidney.

Dr. SIGMOND was inclined to agree with Mr. Dillon, that as complete a decomposition of the urine does take place in the bladder, under the circumstances mentioned, as in any other receptacle for it; and it was very plain from those most generally used for that purpose, that as soon as the acids called cystic were separated, ammonia, which by the experiments of Vauquelin, Cruikshank, and others, was proved to be the component part of urea, was evolved.

The House Surgeon to the Middlesex Hospital, in answer to a question, said that the water was drawn off in the case of Mr. Mayo's patient three times a day.

Mr. LAMBERT was a little astonished to hear these opinions. In many of the cases which he had seen, some of which had been under the treatment of Mr. Key and Mr. Travers, in Guy's and St. Thomas's Hospitals, and where the greatest attention had been payed to them, and where the urine had been regularly evacuated three times a-day, these symptoms had, nevertheless, invariably occurred. He thought it a little extraordinary, that the history of Mr. Dillon's cases should differ so much on this important point.

Mr. ROSE thought, that the fact of ammoniacal urine being secreted after injuries of the spine, was now fully established; Sir Everard Home had paid, several years ago, in St. George's Hospital, great attention to this subject. He had, at first, supposed that the production of ammonia must be the consequence either of allowing the urine to stagnate in the bladder, or from the continued use of the same catheter, which might have become foul. He had, however, found, that when a clean catheter was regularly introduced three times a-day, ammonia was still evolved; and that when the catheter was retained continually in the bladder, the quantity of ammonia was greatly increased, probably from its stimulating the kidneys; and even, in some cases where the urine flowed involuntarily from the bladder, the moment it was secreted, Dr. Prout had found it to contain ammonia in a free state. He had therefore been convinced, that the derangement in the urinary organs was the consequence of the injury of the spine.

Mr. MAYO thought, that the occurrence of death in these cases was sufficiently accounted for, by the ramolissement of the spinal marrow, without ascribing it to the disease of the bladder.

Dr. JOHNSON said, that he should like to hear the opinions of the members respecting Mr. Iliff's case of spontaneous paraplegia,* which was read at the *London Medical Society*. It had been published, and probably all the members had read it.

No discussion, however, took place relative to this case, owing to the hour of adjournment (ten o'clock) having arrived.

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* In the report of this case, there was an omission, which shall be supplied in our next Number.

MEDICO-CHIRURGICAL SOCIETY.

B. Travers, Esq. President.

The Society again met on Tuesday evening, and, after much preliminary business, proceeded to hear the continuation of Mr. Lawrence's paper on Erysipelas, which contained a great many decisive cases in favour of the treatment by blood-letting and incision.

A great number of cases, and several where the disease had attained a great extent, in which blood-letting was employed to the amount of twenty ounces and upwards, and this repeated frequently when necessary, were related, in which the severity of the symptoms had been immediately relieved, and the further progress of the disease arrested. These cases afforded instances of the efficacy of this plan of treatment in erysipelas of almost every part of the body, and in some of them it had been attended with the happiest results, even where the disease was of considerable standing. Mr. Lawrence had employed the evacuation of blood in constitutions of every kind; and the history of two or three patients was given, where it had exerted a powerful benefit even in the gouty and dissipated. In one very bad case of erysipelas of the head and face, where coma had been induced, the bleeding was carried to a very great extent in the course of a few days, and seemed, undoubtedly, to be the means of saving the patient's life.

A young man, who had laboured for some time under a stricture of the urethra, was, a few days previous to his admission into St. Bartholomew's Hospital, exposed to the influence of damp and cold, and soon after was attacked with a painful swelling in the groin, and erysipelas rapidly developed itself. On his reception into the Hospital, it had extended over the groin, part of the abdomen, and the front of the thigh. The constitutional disturbance attending it was great; pulse strong and quick; headach; nausea and other febrile symptoms; blood-letting was freely employed in conjuction with the use of saline medicines and purgatives. These remedies produced an immediate effect on the disease; its further progress was arrested, and the patient recovered without the occurrence of suppuration, or any of the ordinary bad consequences of erysipelas.

A young woman, who had been the subject of gonorrhœa, had a severe shivering after being exposed to cold, which was followed by pain and swelling of the side of the neck; and on her admission into St. Bartholomew's Hospital, the erysipelatous inflammation had attacked the head, face, and neck; and the constitutional disturbance corresponded to the extent of the disease. In this case, also, the complaint yielded rapidly to the same plan of treatment.

In one patient suffering from erysipelas of the head and face, where the pulse was very variable in point of strength, and in which stupor had been induced, the evacuation of blood was attended with great relief; and, indeed, in all the severe cases of the disease related by Mr. Lawrence, wherein it affected the head, and where stupor and coma had succeeded, the evacuation of blood had exerted a very powerful and beneficial influence. The only instance narrated in which the plan had not proved ultimately successful was in the following unique case.

A middle aged gentleman came from the country to London, for the purpose of consulting Mr. Lawrence about a stricture of the urethra, under which he had long suffered, and about his general health, which from attacks of gout and other causes had got into a bad state. Mr. Lawrence recommended to him great attention to his diet, and restricted him to a small quantity of wine, which he formerly indulged much in; but on two occasions after his arrival, in company with his friends, he partook freely of the pleasures of the table, and soon after he was attacked with hardness and swelling in the situation of the submaxillary gland; erysipelas rapidly appeared, and extended over the neck, shoulder, and breast. He also became affected with a great degree of difficulty of respiration. Blood-letting was freely employed, in conjunction with saline mixture, calomel, &c. The erysipelas, however, increased, and the difficulty of respiration became remarkably severe, and one morning he jumped out of bed almost in a state of suffocation. The bleeding was repeated several times, and every means which Mr. Lawrence or Dr. Tweedie, who was called in at Mr. Lawrence's request, could suggest, without effect, and the patient died. On dissection the disease was found to be very extensive. The cellular structure was found thickened and gorged with serum, but no pus had been formed excepting a small quantity near the submaxillary gland, the original seat of the disease. The most curious circumstance, however, which the dissection revealed, was the fact of the disease having extended along the pleura lining the sternum, to the pericardium. Between the layers of the anterior mediastinum and those of the pericardium, there being effused a large quantity of serous fluid.

The other cases, which also were numerous, pointed out the efficacy of long incisions in cases of a severe kind, and which had resisted previous blood-letting; and instances were mentioned where they had been practised in every portion of the body. They had been employed of various lengths according to the extent of the disease. Mr. Lawrence had generally made only one incision, which was carried through the centre of the inflamed surface nearly its whole length; in two cases he had divided the integuments of the lower eyelid, in several those of the head. He had treated one case of erysipelas occurring during pregnancy according to this plan, and with the best result. One case was narrated where an incision not less than fourteen inches had been made in the inferior extremity, and with the most decided and instantaneous benefit; and some cases were read, in which it had been necessary to make an incision on each side of the limb. On cutting through the skin, Mr. Lawrence had generally found thickening of the cellular structure, which had in most of the instances become of a green colour, with copious effusion of serum.

The reading of these cases, which were very numerous, and as far as they went, of decisive importance, seemed to make a great impression on the audience.

Dr. Babington begged to inform the Society, that since its last meeting, he had seen the surgeon of Greenwich alluded to by Mr. Brodie, who was in the habit of treating erysipelas by making numerous punctures with the lancet. He had had a good deal of conversation with that gentleman on the subject, who had informed him, that in his practice it had proved very successful. His patients had generally been the old, and frequently the weak. He was in the habit of employing punctures in all cases of erysipelas, whatever part of the body was the seat of it. He made a great many punctures with the point of the lancet in one circumscribed spot, and these were repeated frequently. The punctures resembled the dotting of a pen on paper. They generally gave exit to a quantity of serum. But antiphlogistic treatment had not been combined with their use, quite the reverse. His patients being the old and weak, required, in his opinion, the use of stimulants, and he had given bark, wine, diluted spirits, and, in some cases, pure spirit itself, where the patient had long been addicted to its use, and with great effect. No bad consequences had ensued from the practice of punctures at Greenwich.

Mr. Copland Hutchison was glad to find by the reading of this paper, and the subsequent discussion, that the principles which he had made known, had been so much approved of by many of those who were present, and particularly by the author of the paper; but he differed from Mr. Lawrence on the expediency of making such long incisions. The plan recommended by himself was, to make several small incisions, varying from one to two inches in length; but, on all other points, his practice corresponded to that of the author. The efficacy of making incisions was now duly appreciated in Edinburgh, where it had received a very extensive trial.

Mr. S. Cooper wished to know from Mr. Lawrence, whether he meant to inculcate the necessity of making incisions in cases of erysipelas, where neither suppuration nor sloughing had occurred. He could not, he must confess, see the necessity or expediency of making incisions at all, and he decidedly condemned the plan of making them to such an extent as that of fourteen inches. He, for one, would never attempt such a practice, till he had had more experience of its benefit. He had seen two cases of erysipelas treated, according to Mr. Hutchison's plan, in St. Bartholomew's Hospital, soon after the promulgation of his views; in these the practice had not proved successful; and he had heard of two cases wherein the employment of them had proved fatal; in one of them from the shock, in the other from hæmorrhage. He could not, therefore, agree with Mr. Lawrence's conclusions, as to the uniform success of the measure, and he saw no reason why so severe a plan should be adopted, when milder means would probably answer as well.

Mr. Lawrence wished it to be decidedly understood, that the practice of making incisions was employed by him in the early stage of erysipelas, and for the obvious purpose of preventing the occurrence of suppuration and sloughing, He by no means meant to state, that erysipelas could not be cured without them; but this was the decided result of his experience, that it saved the patient a vast deal of suffering, prevented extensive sloughings and sphacelus, and the consequent loss of motion in the arm, from the contraction of the cicatrix. He thought it much better to make one incision of considerable length, than a great many of less individual extent. The sum total of which, as Mr. Cooper had jocularly computed, would amount to more than the length of his single incision, both because this plan was more successful, and because it saved the patient a great deal of pain.

Dr. Roots was not sorry that he had been absent at the last meeting, otherwise he might have been tempted to make an incision on the scalp of a lady, who was then under his charge, and who had done very well without it. He bore testimony to the truth of Mr. Lawrence's views, in considering erysipelas an inflammatory disease, and of the general propriety of the antiphlogistic practice; but he, at present, could not see the use of making large incisions when the disease could be cured, and, as he thought, as effectually, without them.

A Gentleman, whose name we did not learn, called in question the originality of the practice, so far as it had been claimed by Mr. Hutchison. It has long been the custom among the shepherds in his part of the country, to make incisions in the hand and fingers when affected with erysipelatous inflammation, excited by some disease of the udder of the cow. He called to Mr. Lawrence's recollection the statements of a gentleman, whom Mr. Lawrence had not mentioned, Dr. Buttler, who, in his cases of irritative fevers, has borne ample testimony to the efficacy of incisions.

Dr. A. T. Thomson could by no means understand how erysipelas could be considered as of a pure inflammatory nature, since he was aware of no phlegmonous disease which followed its course, or was attended with the same febrile characters. He spoke of the propriety of making distinctions in certain cases, and of occasionally employing stimulants; and he seemed to be decidedly averse to the practice of incision.

Mr. Mayo, in a few words, stated his belief of the general propriety of treating erysipelas *without* blood-letting; which generally yielded, in his hands, to the use of medicine, and *local* applications to the *part*.

The President stated, that the hour for separating had now arrived, but he thought it would be proper, considering the vast influence the paper, coming, as it did, from so high an authority as Mr. Lawrence, and also appearing among the transactions of that society, would have on the public, and as many members were still anxious to deliver their opinions on the subject, that the society should resume the discussion on the next occasion.

Mr. Lawrence observed, that if the suggestion of Mr. Travers was adopted by the society, he would, for the present, waive the right of reply, which he believed was generally conceded to the author of the paper.

The society was then adjourned. The audience was again numerous, and the paper seemed to excite a deeper degree of interest than we recollect to have observed on any former occasion.

THE LANCET.

London, Saturday, October 27, 1827.

Although the articles which occasionally appear in the public papers on medical politics, are calculated rather to retard than accelerate the progress of medical reform, in consequence of the want of information on such affairs by their non-professional authors, yet we invariably hail their publication with the greatest satisfaction, from a conviction that they must have the effect of rendering a reform more decided, and more effectual, when the period shall arrive for its consummation. It is therefore with much pleasure, but not unmingled with regret, that we have read two or three articles which have recently found a place in *The Times.* The writer evidently entertains the best wishes for the success of our cause, but obviously is not well informed, relative to the manner in which it can be most easily and efficiently obtained. The articles in question we will publish on a future occasion, with such comments as they seem to require; we should not have alluded to them this week, cramped as we are for space, were it not to avert the pernicious consequences that might otherwise result from the following statement, if allowed to remain uncontradicted or unexplained, proceeding as it does from such an influential journal, "The pupils themselves are so utterly and stupidly careless, where the object of passing an official examination is not concerned,, that a man so eminent and able as Dr. Cholmondeley, Physician at Guy's Hospital, has rarely more than one or two students to attend his clinical lectures at the patient's bed side; the most really efficient class of lectures that can be given, and by the most competent instructor." So far are the pupils from "being utterly and stupidly careless," we venture to affirm that there is not to be found in the British dominions a body of young men more persevering, more unremittingly industrious, or who acquire more information in the same space of time.

Few can form a correct notion of the difficulties they have to contend against, or the obstacles they have to surmount; and, so far from their being regardless of clinical instruction, it is a species of knowledge for which they seek with an insatiable appetite. We do not deny that Dr. CHOLMONDELEY, when he delivers a clinical lecture, has an exceedingly small class; nor do we profess to feel any surprise at that circumstance. The editor of *The Times* will recollect that there is a vast difference between possessing information, and possessing the power to *communicate* that information. Dr. CHOLMONDELEY is a most able physician, but at the same time a most wretched teacher; his oral discourses are not only destitute of attraction, but are so frigid and pointless, that they are calculated to repress, if not disgust, the inquiring ardour of a youthful mind. Let it not, therefore, be credited that medical students are inattentive to clinical lectures, when delivered by *competent* teachers. And let not the lazy officers of our public Hospitals regard the statement in *The Times* as any excuse for the non-performance of their duty to the neglected pupils.

THE public and the profession are looking forward with intense anxiety to the decision of the Middlesex Magistrates, (who meet the 1st of the ensuing month,) on the subject of a COUNTY LUNATIC ASYLUM. An impression generally prevails that such an institution will be forthwith erected. The Magistrates can no longer doubt that an establishment of the kind is imperiously demanded—humanity, science, and economy, alike call aloud for its adoption; the cruelties practised on the hapless paupers in some of the private asylums, are of so atrocious a nature, that the blood is chilled at their recital. Letters upon letters reach us daily, with fresh accounts of these inhuman and villanous practices. We abstain, however, from giving publicity to individual acts of cruelty, lest it might add to the wretchedness of those who are already tortured by the recollection that they have relatives who are enduring the miseries of these pestilential bastiles. If the magistrates were members of the medical profession, there would be no difficulty in convincing them that there is not a single valid objection which can be offered against the erection of a County Asylum, or that a single argument, deserving the slightest consideration, can be advanced in support of the present system. Is it rational that those who have to treat insanity should *profit* by a *continuance* of the disease? Under the influence of such a principle, the most feeling mind might become brutalised, and every humane feeling yield to unrelenting avarice. Are human beings to be treated in a manner that a man would not treat his *cattle*? What gentleman would send his horses or his dogs to an infirmary under a contract to pay 50 per cent. more, whilst they remained there in a state of disease, than he could support them for at home, either in health or disease! Again, would he send them to a place for the purpose of being cured, where no classification is observed, and where the conductors of the establishment are as ignorant of the diseases they profess to treat, as the horses themselves? It is now as well known that insanity is caused by disease of the brain, as that blindness results from inflammation of the eye; and by judicious treatment at an early period of each complaint, that one disease may be as easily cured as the other. This statement is not advanced without due consideration; doubtless its accuracy will be denied by many, and it will surprise more, but nevertheless it is true. If the magistrates still doubt what has been advanced on the subject of insanity, or if they attribute the writings of any of the parties to personal pique against the conductor of some lunatic establishments in the neighbourhood of this metropolis; if they still are inclined to believe that insanity cannot be *prevented* in thousands of cases, and *cured* in hundreds; then we say, let them solicit on the day of their meeting the attendance of Drs. SPURZHEIM and HASLAM, gentlemen who have hitherto taken no part in the discussion, and whose abilities and disinterestedness do not admit of question. In an affair of such vast public importance, we are most anxious to refrain from making any and every allusion which can prove personally offensive in any particular quarter. If, however, the magistrates through obliquity of judgment, or any other cause, should fail to perform a most important part of their duty, we will resume the investigation of this subject, and no earthly consideration shall deter us from making disclosures which must convince the legislature of the necessity of its immediate interference.

MR. STOCKER, of Guy's Hospital, desires us to state, that no portion of the funds subscribed for the portrait of SIR ASTLEY COOPER, ever came into his possession, and that he knows nothing of the matter. Mr. STOCKER is a highly respectable man, and we assure him, as far as we are concerned, that his integrity has not been questioned.

WE suppose it is unnecessary to apologise to our readers for presenting them occasionally with an *additional sheet*, for which they will perceive that neither last week, nor on the present occasion, have we made any extra charge. We must frankly state that it is rather an act of necessity than one of kindness, as materials are continually flowing to us from so many sources of information, that the ordinary limits of our Journal are altogether inadequate to their reception. Our table at this moment is absolutely covered with valuable communications, which we find it impossible to insert; and, independently of the articles from Foreign Journals, Reviews, Hospital Reports, Communications from private sources, the proceedings of Medical and other Societies, we have no less than one hundred and thirty Lectures belonging to the courses now publishing, which we must compress into the volumes of the present year: nevertheless the price will not exceed that of the volumes for the past year. We take this opportunity of intreating our Correspondents to be as *brief as possible* in their communications, and invariably to adopt as their motto "*multum in parvo.*" We have this week received an article of not less than twenty sides of foolscap closely written; it was really unreasonable to expect that it could be inserted without mutilation.

SEVERAL pupils of Bartholomew's Hospital loudly complain of the conduct of the persons who have the superintendence of the dead-house; *subjects* are constantly examined without any previous notice, and the students are thus deprived of the most valuable source of professional investigation. It is an act of inexcusable neglect on the part of the surgeons, that they do not adopt some plan for the better regulation of this important branch of pathological research.

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Library of Useful Knowledge.—Preliminary Essay on the Objects, Advantages, and Pleasures of Science.—Hydrostatics. 1827. Baldwin, Cradock, and Joy.

Library of Useful Knowledge.—Animal Mechanics. The Perfection of Design in the Bones of the Head, Spine, and Chest, shown by Comparison with Architectural and Mechanical Contrivances. 1827. Baldwin, Cradock, and Joy.

The Blunders of a Big Wig; or Paul Pry's *Peeps into the Sixpenny Sciences.* 1827. Hearne, Strand.

The tracts which we have placed at the head of this article, furnish many topics for reflexion, some for criticism: the two first, as their titles inform us, form part of a series of similar productions, intended to be published by "the Society for the diffusion of Knowledge," and if the forthcoming numbers equal their predecessors in *accuracy*, the corrigenda and errata are likely to be almost as numerous as the pages of the work itself. The two first Numbers of the book of knowledge, as it is called, have been generally attributed to a great lawyer, who, not satisfied with leading in the senate and at the bar, seeks to fabricate a claim to the reputation of being a universal genius, and to prove to the community that he is as intimately acquainted with the minutiæ of arithmetic, mathematics, &c., as he confessedly is with law, criticism, and politics. But there is an old adage, "*Non omnia possumus omnes,*" the truth of which our would-be Crichton has found out by this time. He appears to have made a sad exposé of his scientific attainments. It is bad enough to have his blunders shown forth by such critics as Mr. Paul Pry, but it is rather too bad to have them paraded before the public, and the subscribers to the "Sixpenny Sciences," as they have been in the last Numbers, as if the "men of knowledge" had conspired to exhibit the incapacity of their leader.

Two instances out of many that may be cited, will suffice to show what a great deal of science there may be outside a big wig. We are very seriously told, "that the power which attracts bodies towards the earth, varies with the distance exactly with the squares, lessening as the distance increases; thus at two miles from the earth it is four times less than at one mile, at three miles nine times less, and so forth;" these are the words, the *ipsissima verba* of this expounder of the Newtonian philosophy. Thus (to use the elegant paraphrase of Mr. Paul Pry,) "A Billingsgate having placed a basket at her knees, or a third of her altitude, finds that it there weighs 36 pounds; she then elevates it two-thirds of her altitude, knowing that it will there weigh but nine pounds: but still finding it too heavy, she places it by the next effort on her very tip-top, and finding it only four pounds weight, marches off with joyful alacrity, crying, '*Eels, live eels, O!*" To lighten the burdens of the labouring poor, is a work truly worthy of him who seeks to enlighten the understandings of the community at large. But what shall we say of the man who suggests a plan for adding to the apparent weight of commodities, and enabling shopkeepers and traders to trick their customers. By this notable expedient, which is described at considerable length, "The weight of a vessel containing water (spirit or any other fluid may doubtless be substituted) may be increased, although nothing whatever is added to or made to touch it." Our philosopher, not content with this, blunders on most manfully, turns topsy-turvy any little stumbling-blocks that common sense may throw in the way of his paradox, and actually supposes a case in which, by a simple contrivance or apparatus, *four ounces of water may be made to weigh fifty-two ounces—si sic omnia*!! Paul Pry's remarks on this and several other parts of the lawyer's essays, are well deserving of attention: this dry sarcastic humour gives considerable effect to the point of his criticisms.

The part of the "Book of Knowledge" which we propose to analyse, is written with the object of pointing out "the perfection of design in the bones of the head, spine, and chest, shown by comparison with architectural and mechanical contrivances." The writer further undertakes to prove,

"That the foundation of the Eddystone lighthouse, the perfection of human architecture and ingenuity, is not formed on principles so correct, as those which have directed the arrangement of the bones of the foot; that the most perfect pillar or king-post is not adjusted with the accuracy of the hollow bones which support our weight; that the insertion of a ship's mast into the hull is a clumsy contrivance compared with the connexions of the human spine and pelvis; and that the tendons are composed in a manner superior to the last patent cables of Huddart, or the yet more recently improved chain-cables of Bloxam."

So many of the illustrations are taken from naval architecture, the diction also abounds so much in sea-phrases, that we at first supposed the author to have been by profession a seaman, or to have spent some part of his life in the study of naval tactics. He speaks with the greatest fluency of "tacking and steering," of "swaying the ship," of "Finland boats, and Dutch doggers," whilst "cables, hawsers, and strands," form the main story of his tiny edifice. Our supposition, however, appears to have been erroneous; the reputed author has domiciled the greater part of his life in Edinburgh and London, in which places, he doubtless acquired his information in naval affairs, but not by inspiration, as we shall presently show.

The author appears, to us at least, to have borrowed almost all his illustrations from Dr. Arnott's Elements of Physics. With this we should not find the least fault, if any acknowledgment were made for the obligation, or even mention made of the work. This too may be palliated under other circumstances, or in an individual of less pretension. It may be said, that a writer is not required to fortify himself with authorities, when writing a short popular tract. But when we find, at the end of this essay, a list of the books given, from which information has been obtained by the author, or may be acquired by the reader; and when, moreover, we find the author to be a man of great piety and purity, so far as can be inferred from the tone in which he begins and ends his essay, we should have expected, at least, some notice of the book from which he derived the only attractive and instructive parts of it. Such an omission is objectionable in any writer; it is unpardonable in one who professes to have no other object in view than that of extending far and wide the boundaries of knowledge. If the reader will but carry his eye along the following passages, he will be enabled to determine how far our author has done justice to his readers, in suppressing the best source of information that could be laid open to them—to the writer, whom he almost literally transcribes—to those principles of which he makes a parade, and which should have taught him to "render unto Cæsar the things which are Cæsar's."

We are informed, that the best illustration of the form of the head is the dome. "A dome is a vault rising from a circular or elliptic base; and the human skull is, in fact, an elliptic surmounted dome, which latter form means, that the dome is higher than the radius of the base." The man of knowledge then says,—

"It is obvious enough, that the weight of the upper part of the dome must disengage the stones from each other which form the lower circle, and tend to break up their joinings, and consequently to press or thrust outwards the circular wall on which it rests. No walls can support the weight, or rather, the lateral thrust, unless each stone of the dome be soldered to another, or the whole hooped together and girded. The dome of St. Paul's has a very strong double iron chain, linked together, at the bottom of the cone; and several other lesser chains between that and the cupola, which may be seen in the section of St. Paul's engraved by Hooker."

Farther on, he proceeds as follows,—

"We may here notice an opinion that has been entertained, in regard to the size of animals. It is believed that the material of bone is not capable of supporting a creature larger than the elephant, or the *mastodon*, which is the name of an extinct animal of great size, the osseous remains of which are still found. This opinion is countenanced by observing that their bones are very clumsy, that their spines are of great thickness, and that their hollow cylinders are almost filled up with bone.

"It may be illustrated in this manner:—A soft stone projecting from a wall may make a stile, strong enough to bear a person's weight; but if it were necessary to double its length, the thickness must be more than doubled, or a freestone substituted; and were it necessary to make this freestone project twice as far from the wall, even if doubled in thickness, it would not be strong enough to bear a proportioned increase of weight: granite must be placed in its stead; and even the granite would not be capable of sustaining four times the weight which the soft stone bore in the first instance. In the same way, the stones which form an arch of a large span must be of the hardest granite, or their own weight would crush them. The same principle is applicable to the bones of animals. The material of bone is too soft to admit an indefinite increase of weight; and it is another illustration of what was before stated, that there is a relation established through all nature, and that the very animals which move upon the surface of the earth are proportioned *to its magnitude*, and the gravitation to its centre."

"In order to demonstrate the advantage which, in the structure of bones, is derived from their cylindrical form, a diagram is given, with a view to point out the effect of a force applied so as to break them. If a bone or a piece of wood be made to rest horizontally,

According to Dr. Arnott, p. 191,—

"The great domes of churches, as those of St. Peter's in Rome, and St. Paul's in London, have strength on the same principle as simple arches. They require to be strongly bound round with chains and iron bars at the bottom, to counteract the horizontal thrust of the superstructure."

"Strength," says Arnott, "depends on magnitude, form, and position, as well as on the natural adhesion of materials.

"Suppose two blocks of stone left projecting from a rock that has been hewn, of which blocks one is twice as large, and deep and broad, as the other. The larger will by no means bear as much more weight attached to its end than the small one, as it is larger. Hence, if any such projection be carried out too far, it breaks off, or falls by its weight alone."—p. 181.

"Even in granite, which is the strongest of rocks, there is a limit in these particulars; and if any elevation more remarkable than now exists on earth, were by any chance to be produced again, the law which we are considering would prune the monstrosity"—p. 182.

"Again, the size of vegetables is obedient to the same law, and animals furnish other interesting illustrations of it. The giants of the heathen mythology could not have existed upon this earth, for the reason we are now considering. Many have doubted whether the mammoth could have lived on dry land, or whether he must have been amphibious, that his great body might be generally borne up by the water"—p. 185.

Dr. Arnott thus treats the same subject, "In longitudinal compressions (where a weight presses on the top of a pillar,) the weight can only destroy the support by crushing it, and crushing is the most difficult mode of breaking. Hence a very small supported by its two extremities, and if a weight be attached to its centre, the inferior surface will be torn asunder, whilst the superior is crushed.

"The writer *lately* observed a good demonstration of this:—a large tree was blown down, and lay upon the ground; to the windward, the broken part gaped; it had been torn asunder like the snapping of a rope: to the leeward side of the tree, the fibres of the stem were crushed into one another and splintered; whilst the central part remained entire. This, we presume, must be always the case, more or less; and here we take the opportunity of noticing why the arch is the form of strength. If this transverse piece of timber were in the form of an arch, and supported at the extremities, then its whole thickness, its centre, as well as the upper and lower parts, would support weight by resisting compression."

pillar, if kept perfectly straight, will support a great weight; but if the pillar begin to bend, it resists only with part of its weight. The reason is, that by the bending of the pillar, the whole weight is supported on the atoms of the *concave side only, which are therefore in danger of being crushed, whilst those on the convex side are in danger of being torn asunder.*" p. 186.

Lately! In the summer of 1827, when trees were torn up by the roots, and riven by the wind, and their foliage scattered by the pitiless storm!!—There is something graphic in this. Some people have a habit of embodying a precept into a tale; others transform a truism into a case, giving it a "local habitation and a name," and palm it on others as if it had a real existence, though it was nothing but the creature of their own fertile imaginations.

The author proceeds ringing changes on Arnott as follows:—

"If we look down upon the bones of the foot, we shall see that they form a complete circle horizontally, leaving a space in their centre. These bones thus form three different arches—forward; across: and horizontally: they are wedged together, and bound by ligaments, and this is what we alluded to when we said that the foundations of the Eddystone were not laid on a better principle; but our admiration is more excited in observing, that the bones of the foot are not only wedged together, like the courses of stone for resistance, but that solidity is combined with elasticity and lightness.

"It was a beautiful problem of the kind, (the determining by calculation the best form of beams, joists, &c.,) which Mr. Smeaton, the engineer, solved, &c., perfectly in the Eddystone light-house. He had to determine the form and dimension of a building which should stand firm on a sunken rock, in the channel of a swift ocean tide, exposed to the fury of tempests from every quarter."—p. 192.

Again:—

"There is another curious circumstance in the form of the thigh-bone, showing how it is calculated for strength as well as freedom of motion. To understand it, we must first look to the *dishing* of a wheel—the dishing is the oblique position of the spokes from the nave to the felly, giving the wheel a slightly conical form. When a cart is in the middle of a road, the load bears equally upon both wheels, and both wheels stand with their spokes oblique to the line of gravitation."

"The wheel of a carriage is a very nice piece of workmanship, simple as it appears to us from our extreme familiarity with it. It acquires astonishing strength, indeed, (that of the arch,) from what is called its dished form; and that form is further useful in this, that when the carriage is on an inclined road, and more of the weight, therefore, falls on the wheel on the lower side, the under spokes of that wheel become nearly perpendicular, and thereby support the increased weight more safely." p. 176.

It is rather curious to observe how nearly the sketch given to illustrate this principle resembles that by Arnott, p. 115. Our animal mechanician having merely surmounted his cart with two rustics, as if to diversify the scene.

We again distinctly repeat that we do not impute it as a fault to the writer of this tract, that he made a free use of the materials to be found in a good book—far from it. Neither should we have thought it very censurable if in a sixpenny production he omitted all mention of authorities, or writers. But when we find him adding a list of the books he recommends as giving information on the subject he treats, suppressing even the title of that from which in our opinion he appears to have taken the most instructive part of his Essay, we feel constrained to notice the omission, and to give our readers an opportunity of judging of the motive which prompted it.

This tract opens with a very solemn introduction, and closes appropriately enough with a serious sermonizing peroration. The list of books may be considered as an Appendix. It savours somewhat of puerility to quote as authorities in anatomical subjects such writers as Derham, Fenelon, and Ray; excellent men, no doubt, in their proper sphere, but here rather out of place. Why not quote some of those who have treated the subject *ex professo*? Are there not some living authorities who may be named? And is not "a living man better than a dead missionary?" So at least that *practical* philosopher Robert Gourlay once said on a memorable occasion, and to no less a person than the President of the Knowledge Society.

Cant has been defined to be "a pretension to piety which the speaker feels not." It was the style of the covenanters—of the commonwealths-men of old. Who can forbear to smile on reading the canting preachments of their Harrisons and Bradshawes, who could not indite a letter to one another without interlining it with scripture phraseology? We laugh at their extravagance, though we must admire their devotion to the cause they espoused—and surely those who come after us, in whatever light they may view "the men of knowledge," their present measures and future consequences, can scarcely avoid smiling at the grotesque mixture of psalm-singing and demonstration of twaddle and exposition that run in such ludicrous contrast throughout their productions. "Truly I think that he who prays and preaches best will fight best." It may not be altogether out of character for a military saint to quote scripture for a precept in the art of war, but it is rather ludicrous for "a man of knowledge" to cite Paley and Fenelon as authorities in anatomy. The man of war (Harrison) labouring in his vocation did not disdain to use the "word of the spirit," and the modern "man of knowledge" resorts to the sly insinuations of cant; "and of all the cants that were ever canted in this canting world the cant of hypocrisy is the worst." We said at the outset that these tracts furnished several topics for criticism and reflection. We have used our wonted freedom in both, but our limits prevent us from proceeding further, though the subject is far from being exhausted.

Conversations on Anatomy, Physiology, and Surgery. By Archibald Robertson, M.D. &c. &c. 12mo. pp. 446. Buchanan, Edinburgh, and Highley, London, 1827.

Whoever has spent a winter in that nursery of M.D.'s, Modern Athens, must be already well acquainted with the *parroty* productions of this colloquial author, for few, we should think, have passed through the ordeal of the imposing examinations, without at least undergoing a six months preparation by those *omniscient* gentry denominated "*grinders*," who, whether from being in league with this their paper brother, or because he saves them a vast deal of trouble, generally contrive to instil into the mind of the young aspirant the necessity of storing his mind with the logic of Robertson. As long as that character pursued his system of trickery in a dead language, we considered him to be a harmless animal, and we even thought that his productions might be useful in teaching the classical scholar how to understand the barbarous latinity of a *Home* or a *Graham*; but since he has now thrown off the cloak which concealed his numerous deformities, and has assumed a garb calculated to mislead the young or ill informed, it becomes necessary to hold him up in his native colours. The *work*, independent of numerous and gross anatomical and surgical inaccuracies, evinces throughout a great deficiency in that knowledge, which has been derived from the labours of the anatomists and physiologists of the Continent, without a due acquaintance with which it is in vain for any one to write on the subjects of which he has treated. Secondly, it is manifest that none of his statements are derived from his own personal observations, but are almost completely, and indeed, we think, nearly verbatim, copied from Monro and Fyfe, authors many centuries behind the present state of the science. To these very great and insurmountable deficiences we may add, that the descriptions are given without any system or order, which to the student is of the most material consequence in assisting his memory; and the excellency of which (to compare great with small) has rendered the works of Cloquet so invaluable.

Besides, however, these glaring and fundamental faults, the plan of question and answer is excessively ill-adapted for teaching the student anatomical knowledge, which can only be properly acquired by a severe and systematic study. Whoever learns from such a childish production as this, ought to consider himself in no way removed, in point of intellect, above the parrot—and let him be well aware, that though he should be able to have the whole work by heart, which we very much doubt the power of any one to do, he will, in a very short time, forget every atom acquired in such a contemptible way. The author, too, aware of his own deficiencies, and that his catechism could only be perused by the most uneducated readers, has thought it prudent to accentuate every Latin word: thus, "canalicŭli lachrymāles," "tunĭca sclerotĭca," &c. &c., which we consider nothing less than an insult to every properly educated mind; and we strongly recommend to those, requiring such asaistance, for ever to abandon not only the author, but also the profession of medicine.

Of the general plan, object, and poverty of the author, let the following serve as a specimen:—

"Q. What are the two parts of which the human body is generally said to be composed?

A. The solids and fluids.

Q. How are the solids divided?

A. Into hard and soft parts.

Q. What are denominated hard?

A. The bones and cartilages.

Q. What soft?

A. The muscles, viscera, and all other parts"!!!

To attempt to expose all the blunders, which are every where to be found, would occupy more space than we can possibly afford, we must therefore content ourselves with a few:—

"Q. What is the structure of the corpora cavernosa (of the penis)?

A. Their internal structure is reticulated, and divided into *cells*, which are very similar to the *cancelli* in the extremities of long bones, and communicate very freely with each other; among these *cells* the arteries are copiously dispersed, and pour their blood into them, distend them, and thus produce an erection of the penis."

Now, although this may be the opinion of Fyfe and Monro, of the structure and use of the corpus cavernosum, it is completely incorrect; for, instead of cells there only exists a great plexus of small veins, forming what has been denominated by the French, "the erectile tissue."

"Q. Describe the relative situation of the lobules (lobes) of the liver.

A. The lobŭlus spigelii being the *largest* is situated near the spine, &c.; and the lobŭlus anonymus, or quadratus, is a *small* portion of the right lobe, between the fossa ductus venosi and the gall-bladder."

Here is another glaring anatomical blunder; since the lobulus anonymus instead of being the smallest, is by far the largest of the subdivisions of the right lobe of the liver.

" Q. What are you to understand by a bursa mucosa?
A. It is a bag, or shut sac, placed most frequently under the tendons of muscles."

A bursa mucosa is, in general, a shut sac, but very often it is not; thus the superior bursa of the knee communicates with the cavity of that joint.

" Q. Describe the inguinal canal?
A. ——— The whole of this inguinal canal is about an *inch* in length."

Now every one knows that it varies in length from one inch and a half to two inches.

" Q. What kinds of exostosis are there?
A. The *scrofulous* and the *venereal*."

These are distinctions never to be found in practice, and are entirely founded on erroneous views of disease.

But it would be endless for us to point out all the inaccuracies with which the work abounds, for these are to be met with in almost every page. Nor can we conscientiously recommend any but those destitute of intellect or education to derive knowledge from such a contemptible work.

EXCISION OF THE LOWER JAW. BY MR. HODGSON, OF BIRMINGHAM.

A FRIEND informs us that Mr. Hodgson, of Birmingham, has recently removed the inferior maxillary bone, in consequence of its being the seat of an osteo-sarcomatous growth, which threatened suffocation. The subject of this bold and interesting operation is a Miss R——s, ætat. 30, tall, and apparently in good health. Six years since she perceived a fungous tumour which occupied the cavity left on extracting one of the bicuspides on the right side. This continued to increase in spite of all means employed for its destruction, till it filled up the cavity of the mouth, and protruded the cheek to an equal extent, reaching from the right ramus of the jaw to the left incisor tooth, and threatened suffocation. Under these distressing circumstances the removal of the jaw seemed the only means likely to save her life. She acquiesced to the proposition of an operation, and Mr. Hodgson, with proper assistants, dexterously performed the operation on the 2d inst.

He commenced by making an incision through the left angle of the mouth, along the greatest convexity of the tumour to the base of the ramus on the opposite side. He then divided the jaw opposite the first or second bicuspis, and again above its right angle, dissected away its internal attachments, and all the difficulty was surmounted: many vessels were secured, and but little blood was lost. The integuments were united by suture, and were nearly healed on the tenth day. The operation lasted nearly an hour. A considerable hæmorrhage came on in the night, which threatened to extinguish life; this was, however, restrained, and the patient is recovering, with perfect articulation and ability to act, and with much less deformity than prior to the operation. Her general health was but little affected.

ON THE USE OF MAGNESIA IN CASES OF POISONING. BY JOSHUA BROOKES, ESQ. F. R. S., &C.

To the Editor of THE LANCET.

SIR,—Many months ago I troubled you with a case of poisoning by oxalic acid, which was successfully treated, accompanied by some observations on the use of the stomach pump in other instances of poisoning. That paper has not yet appeared in your pages, and its publication will now be rendered unnecessary, in consequence of other communications on the subject which I hope at a future period to lay before the public.

It ought to be universally known that Mr. HUME, a few years back,* published a case of poisoning by *arsenic*, in which the subsequent exhibition of magnesia was attended with complete success.

Another † instance has likewise been recorded by a medical practitioner, who also saved the life of an unfortunate female by the same simple remedy, acknowledging the practice from Mr. Hume's example.

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* Medical and Physical Journal, December, 1821.

† Idem. by Mr. Edwards, December, 1822.

Many cases have occurred, and subsequently to the publication of these two fortunate instances, where, if we believe newspaper reports, this remedy was totally neglected, possibly from ignorance of its ever having been employed. I think, therefore, the utmost notoriety should be afforded to a fact of such importance: and to promote this desirable object, I beg to solicit the aid of the extensive circulation of your valuable pages.

I may hereafter request to intrude on your Journal, having some extensive observations to offer on the same subject; but fearing that even a day might be lost, I have ventured to promulgate this brief notice, in order that the public may know that if MAGNESIA be injected into the stomach by means of the pump it will render either *arsenic, oxalic acid*, or *corrosive sublimate*, innoxious, (*i. e.* if disorganisation have not already been produced.)

Mr. Hume's method of administering magnesia in these deplorable cases, is by giving frequent and copious doses, with a few drops of laudanum.

I remain, Sir,
Your obedient servant,
JOSHUA BROOKES.

Blenheim Street, Great Marlborough-street,
23d October, 1827.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

CASE OF SCIRRHOUS CONTRACTION AND ULCERATION OF THE ŒSOPHAGUS.—INTERESTING POST-MORTEM EXAMINATION.

M. SACHE was admitted three weeks ago in a very weak and emaciated state, and with that peculiar sallow and anxious countenance, which almost invariably attends carcinomatous disease, for an almost complete obstruction to the swallowing of food, which, as soon as it had passed down a certain length in the œsophagus, was immediately rejected with violent, painful, and spasmodic vomiting. She complained of constant and acute pain in the situation of the lower dorsal vertebræ, to which point she referred the obstruction, through which no solid could be transmitted, and frequently not even the thinnest fluid. Her respiration was perfectly natural, and no tumour could be detected at any part of the chest, or in the situation of the cardiac or pyloric orifices of the stomach. Her general health had suffered much. She was continually under the influence of febrile excitement, and (to use her own expression) had become a perfect skeleton. Stated, that two years ago, she for the first time, and without any assignable cause, experienced a slight degree of difficulty in deglutition, which gradually, though at first very slowly, increased, and was distinctly referrible to the lower part of the œsophagus. During the last few months this obstruction had proceeded to its present complete state with alarming rapidity, and the pain, febrile symptoms, weakness, and emaciation, had increased in a corresponding degree. She had tried every kind of internal remedies at different times without the least benefit, opium being the only medicine which afforded her any relief. On passing a small bougie down the œsophagus, a very firm contraction was discovered near its lower part, through which no instrument could be introduced into the stomach. After the use of the bougie, she experienced a very severe degree of pain, accompanied with nausea and vomiting. The bougie was used several times, but without passing through the obstruction, and it caused much pain and uneasiness; its employment was therefore given up. She was ordered to swallow as much beef tea as possible, and had frequent doses of laudanum; but she would not consent to receive nourishing enemata, which Mr. Wardrop recommended. She was able occasionally to swallow a small purgative pill. In this state she continued gradually to sink, and at length appeared to die of pure exhaustion.

On dissection, at which Dr. Barry and Mr. Bennett were present, a very firm contraction of the œsophagus was found at that part which lay on the 10th dorsal vertebra, and which was produced by a thickening of the whole coats of that tube, which had at this point completely lost their natural texture, and had assumed the fibro-cartilaginous structure, which is the sure indication of strumous disease. For two inches below the stricture, the mucous coat was in a state of great ulceration, which at one point had extended through all the coats, and also the layer of the posterior mediastinum, and thus communicated with the cavity of the right pleura. This ulceration was of a very ragged and irregular kind, and the granulations of a greenish appearance, and the sanies which exuded, had a very fetid odour. On the surface of the base of the right lung, corresponding to the opening in the mediastinum, was a small ulcer, which was very superficial, extending only through the pulmonary pleura; around this ulcer was effused a little lymph. No effusion existed in the cavity of the chest, and the lungs were in other respects healthy. The bowels were remarkably empty, and the stomach exhibited that hour-glass contraction, which has been described by Sir Everard Home, Wardrop, and others.

It is rather a curious circumstance in this case, that no fluid should have escaped through the ulcer of the œsophagus into the cavity of the pleura.

ST. THOMAS'S HOSPITAL.

ULCER OF THE CORNEA.

P. J., a sailor, ætat. 41, admitted into Luke's Ward on the 6th of September, under the care of Mr. Travers, on account of disease of the right eye.

Upon examination, there was found to be an ulcer of the cornea, of about the size of the blunt end of a probe—it was of an irregularly oval shape, of considerable depth, and immediately in the centre of vision. On looking at it closely with a glass, it was seen to be smooth, having a glazed appearance, as though it were covered by the tunica conjunctiva, and the edges were rounded. The cornea, generally, was hazy; there were no red vessels perceptible, passing to the ulcer, but there was considerable vascularity of the conjunctiva, as well as of the sclerotica; the patient said, that he experienced but slight pain, and had no sensation of extraneous bodies in the eye—a symptom present in a very remarkable degree, where the edges of the ulcer are jagged. The account which the patient gave was, that his eye had been affected upwards of a fortnight, that it became inflamed spontaneously, and that he had not had recourse to any medical assistance.

Mr. Travers directed twenty leeches to be applied to the temple and forehead; a lotion, composed of one grain of the nitrate of silver to an ounce of distilled water, to be applied to the ulcer daily, by means of a camel-hair brush. Two drachms of the sulphate of magnesia, ten drops of dilute sulphuric acid, with ten drachms of the infusion of roses, three times a-day.

15. Less vascularity of the eye, but the ulcer of the cornea indolent. The ulcer to be gently touched with a fine pointed caustic pencil.

19. The ulcer of less depth—it has the same smooth appearance, as described on admission. The cornea is now tolerably clear, but for some time after the application of the caustic, it was loaded and hazy. Continue the use of the solution of nitrate of silver.

27. The ulcer is certainly diminished in size since the last report, but appears to be increased in depth at one minute point. Mr. Travers directed the extract of belladonna to be applied around the eye, and a solution of lunar caustic (*two grains* to an ounce of water) to be applied daily. A dose of the decoction of bark, with tincture, to be taken three times a-day, and a pint of porter allowed daily.

October 7. The ulcer materially diminished; it is now only a minute point, but surrounded, as it were, by an opaque halo, the remaining portion of the cornea being perfectly clear.

The same measures were pursued, until the patient left the Hospital, about a week after the last report; there only remained, at that time, a very small opaque spot on the cornea.

On Friday last, Mr. Travers performed the operation of amputation above the knee, on a man who had received most extensive injury to the leg, it being literally crushed to pieces. The poor fellow had fallen from a height of twenty-five feet; and, in addition to this, a heavy body of iron fell upon his leg.

GUY'S HOSPITAL.

OPERATIONS BY MR. KEY AND MR. MORGAN

The three following operations were performed on Tuesday last, at this Hospital.

1st. *Removal of a Scirrhous Tumour from the Mamma.*—The patient in this case was a female about forty years of age, and had only been for a short period in Dorcas Ward of this Hospital. The tumour, which was very hard, and situated on the outer side of the left breast, was of four years standing: the woman had borne children, and had suckled them with the diseased breast, the youngest being seven years old. She had not ceased to menstruate; in fact, the catamenial discharge was present at the time of the operation. Mr. Morgan made two elliptical incisions, including the diseased mass, and then dissected out the tumour: two arteries only were secured, the edges of the wound held together by a suture, and the patient removed to her bed. Some time having elapsed, and no further bleeding occurring, the wound was closed with broad strips of adhesive plaster.

There was one important step in the operation which particularly deserves comment, namely, that during its performance pressure was made on the subclavian artery and in consequence there was but slight hæmorrhage; two vessels only, as we have remarked, being secured. It does not occur to us that any systematic writer on surgery has recommended pressure to be made on the subclavian artery, during the extirpation of the mamma, or removal of tumours therefrom, nor do we remember to have seen it adopted by any other operator than Mr. Morgan. The practice certainly has great advantages, for, as Mr. M. justly remarked to the pupils, at the bed-side of the patient, it not only prevents an immediate loss of blood, but the blood being impeded in its passage through the numerous vessels distributed to the mamma, the mouths of these vessels contract, and hence render the application of ligatures in a great degree unnecessary. Mr. Morgan further observed, that he had witnessed operations for the removal of tumours from the breast, not larger than the one under consideration, where no pressure was made, and where in some instances it had been found necessary to apply nearly twenty ligatures to bleeding vessels.

2d. *Removal of an Indurated Tumour, from the Ligamentum Patellæ.*—The particulars of this case are as follow:—the patient, a woman about thirty-seven years of age, has been for several weeks in Dorcas Ward, under the care of Mr. Key, on account of a very firm tumour in the situation of the ligamentum patellæ; it was of the size of a china orange, very hard and unyielding, but tender if strong pressure were made upon it, so that it interfered with the patient's kneeling, and effectually prevented her from pursuing her ordinary avocations. The account which the woman gave was that she had had swelling at this part upwards of seven years; that she at first received a wound on the top of the knee, and the swelling shortly ensued; the part had been repeatedly blistered and leeched, but with no effect; it was occasionally painful, as was the case at the time of admission. Mr. Key's opinion as to the nature of the case was—that the tumour commenced in the bursa, which after having undergone repeated attacks of inflammation, eventually, with the subjacent cellular tissue, became consolidated, and constituted the swelling in question. Mr. Key directed blisters, and subsequently the moxa, to be applied to the tumour, but it continued in the same state, and therefore Mr. Key finding that he could not stimulate the parts to absorption, and fearing from its proximity to the joint, to lay open the tumour, and induce an ulcerative or sloughing process therein, he determined on removing it by excision.

A free cut was made through the integuments, and the tumour, which was found to be very firmly connected to the ligamentum patellæ, was dissected out. A section was made of the part—the greater mass was of a yellowish colour, and of cartilaginous hardness, at one portion there was a very thick cyst of about the size of a nutmeg, and containing firm cheesy matter: this was supposed to be the remains of the bursal cyst.

3d. *Excision of a Tumour from the back part of the Thigh.*—The tumour was situated about one third of the way upward from the politeal space, at the back of the thigh, and evidently beneath the fascia; the patient a middle-aged man, and the swelling of long standing.

A longitudinal incision was made through the skin, when the tumour was found to be very intimately blended with the fascia, and continuing the dissection it was also ascertained that a portion of the muscle was involved in the disease: it became necessary therefore carefully to remove the whole of the adjacent parts. A section of the diseased mass showed its inner portion to consist of a soft brain-like matter—evidently, as Mr. Key observed, the commencement of malignant disease.

TO CORRESPONDENTS.

Communications have been received from the following correspondents:—Crito—Mr. Verbecke—Dr. Taylor—Mr. Merry—Mr. Garden—Clifton—Mr. Youatt—Mr. Hargrave—Mr. Dillon—Mr. Geo. Bailey—Another Borough Student—M. R. C. S.—A Constant Reader—H. C.—Mr. Morgan—Mr. Dewhurst—Dr. Alexander, Manchester—Mr. Colvan—F. R. C. S. L.—Δ.—An Old Subscriber—Mr. Simpson—Mr. King, Bath—J. S—R. E.—Tyro—D. D.—M. F.—Mr. Campbell—R. Y.—D. E., Birmingham—Celsus—Mr. Rae—Mr. M'Kervor—M. R——y—Mr. Baird—H. A. B.—Non Medicus—Mr. Ganly—J. G.—Mr. James—Alpha—Mr. Tullrdge—Dr. Penneck—A Pupil of the London Hospital—A Hater of Villany—Quiz—Mr. Richards—Psecdadelphomastix—Elentheros—Portora—Wintonensis—Mr. Snaith.

LITERARY NOTICE.

Dr. Armstrong is preparing for the press, an octavo volume on the Remote Causes, Prevention, Nature, and Treatment, of Diseases of the Stomach, Liver, and Bowels. This work, which will appear in the spring, will be preceded by a series of coloured drawings in 4to., with copious text, illustrative of the morbid anatomy of the stomach, liver, and bowels. They will be published in Six Monthly fasciculi, each containing about five plates accurately coloured from nature. The First Number will be ready early in December.

THE LANCET.

Vol. I.] LONDON, SATURDAY, NOVEMBER 3. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY,
DELIVERED AT GUY'S HOSPITAL BY
DR. BLUNDELL.

Lecture V.

Comparison of the Male and Female Pelvis.—Passage of the Fœtus through the Pelvis.

Comparison between the Male and Female Pelvis.—Although, Gentlemen, of course the accoucheur has not to operate upon the *male* pelvis, and therefore takes but a small interest in it, absolutely considered; yet as there are some striking differences between the pelvis of the corresponding sexes, and as the comparison and observance of these differences are calculated to render our ideas of the *female* pelvis more exact and prominent, it may not be amiss that we should enter on them.

If I place the female by the side of the male pelvis, comparing them, I remark that in the male pelvis there is a certain *roughness* and *bulkiness* and *weight*, which strikingly contrast it with the *lighter* and *smoother* and *more elegant* pelvis of the female. In the male, too, I find the ilia, or wings of the ossa innominata are more erect, in the female more expanded. In the male the brim is more rounded, though tending somewhat to an ellipse, the long diameter of which stretches from before backward; in the female, the brim, though sometimes rounded, is generally oval, and the long diameter lies between the sides. In the male, the pelvis is deep; in the female, the pelvis is shallow. In the male you have a very small outlet; in the female you have a very capacious one. In the male the arch of the pubes is contracted, in the female it is capacious, to make room for the more ready passage of the head.

Effeminate pelvis we sometimes meet with in the man, as the whole subject may partake more or less of the feminine character; in the women, on the other hand, we sometimes meet with pelves having much of the *masculine make*, as the whole person may exhibit the character of a virago or a Narcissus; nevertheless, where the pelvis healthily formed possesses its ordinary characteristics, nothing is more easy for the accoucheur, than at one glance to distinguish the sex to which it belongs; and were I to select from the various sexual characters enumerated, any single mark more sexual than the rest, it would be the size of the outlet generally, and more especially the size of the arch; always contracted in a well-formed male pelvis, and always extended in a well-formed female.

Bearing of the Pelvis on the Spine.—In practice, Gentlemen, the accoucheur finds it of no small importance to have a correct notion respecting the bearing of the pelvis on the spine, and, as illustrating this bearing we shall have occasion to speak of the *plane* of the brim, it may not be amiss that I should define, at the outset, what is intended by that term. By the plane of the brim, then, I mean an *imaginary surface*, closing in the superior aperture of the pelvis, forming a sort of *flooring* there, to use a familiar illustration, as a piece of card-board might do.

Now when we first give our attention to the bearing of the pelvis on the spine, some of us, perhaps, get a notion that the plane of the brim and the spinal column are placed as I now place them, in a line with each other; while others, and still more frequently, imagine, that the pelvis is so placed with respect to the vertebræ, that the plane and the spine are at right angles with each other, the sacrum lying directly backward and the symphysis pubis directly forward. In truth, however, it is in neither of these bearings that the pelvis unites with the spine, but it is placed in such manner that the plane and the spine form an obtuse angle with each other, the sacrum lying above and posteriorly, the symphysis anteriorly and below, in the position which I now demonstrate, and therefore it is the uterus resting on the pelvis, as its pedestal, that in the end of gestation, when the womb acquires a large size, it is not placed in the abdomen erect; and you would err greatly, and become very embarrassed in your manual operations, were you to be deceived by this idea. In the living female, when the womb, enlarged by gestation, is resting on the brim, the mouth and neck lie inferiorly and backward, while the fundus, or upper parts, are placed anteriorly, so as to lie out beyond the ensiform cartilage. Now to recollect this is of no small importance in turning the fœtus. If, for example, the arm present—if the feet of the child are lying in the fundus uteri—if you are of consequence compelled to carry the hand into the fundus, in order that you may reach and grasp these feet—the hand must not be passed directly upon the centre of the diaphragm, but upward and anteriorly in such manner that it may project beyond the ensiform cartilage, where, as this apparatus shows you, the fundus is placed. Observing this rule, you may turn with comparative facility, while considerable embarrassment may arise from its neglect.

By knowing the bearing on the spine, though you cannot see the pelvis, you are further enabled, in the living female, to place this part of the skeleton in any direction necessary for your operations. It rarely happens, that we are desirous that the pelvis should lie with the sacrum above, and the symphysis pubis below, as I now place it—that is, with the plane vertically. Yet, now and then, the position may have its advantages, and this position the pelvis assumes when a woman inclines the body forward a little, as if making a reverence; more frequently, we are desirous to give the pelvis such a position that the plane of the brim may lie horizontally, as I now place it. Perhaps you wish to feel the head through the cervix uteri, or you are anxious to ascertain the weight of the uterus, by balancing it upon the finger. Now, in this position of the pelvis, you will most easily make both these observations; and this position is obtained, by placing the patient as I place this image, in the semirecumbent posture, with the shoulders a little elevated—in a word, half sitting, half lying. When there is a *retroversion* of the uterus, a disease I touched in the preceding lecture, in order that the womb may fall back into the healthy position; inverting the pelvis, we sometimes place it with the fundus above. Now this position you obtain, by depressing the shoulders, and raising the hips—in other words, by placing the woman as here demonstrated, on her knees and elbows; and frequently the bladder being thoroughly evacuated, this position alone will be sufficient for the reduction of the uterus. But to return and recapitulate. If you would place the plane of the brim vertically, let the woman bow; if horizontally, let her be semirecumbent; if inverted, let her take position like this image, on her knees and elbows.

Passage of the Child.—Thus much, Gentlemen, respecting the pelvis. Let us now proceed to the consideration of the passage of the child, beginning with the examination of those properties of the child, of which the knowledge is important to the thorough comprehension of its transmission through the pelvis. When I take this figure into my hand, an excellent though an aged model, examining it obstetrically, I soon perceive that it may be conveniently divided into *three* parts—the *head*, *trunk*, and *extremities*—superior and inferior. Of these three parts, it is the head only which requires attentive study; as under the natural presentations, it is the head that constitutes the principal impediment, where a labour is obstructed. Rarely is there much difficulty in abstracting the trunk and extremities; though, now and then it is true, if the shoulders are large, they may not descend with ease; besides, there are no differences between the trunk and extremities of the fœtus, and of the adult, which, from their effects on parturition, require the study of the obstetric practitioner. This being the case then, with a view of simplifying our subject as much as may be, our observations on the fœtus will be principally confined to its head, the cranium especially; and I may set out by observing of the head, what I have already observed respecting the pelvis—I mean, that no two, perhaps, may be found precisely similar to each other. Of these differences in the make of the head, however, there are some, in a practical view, of little importance, on which, therefore, I forbear to dwell; while others there are of no small interest to the accoucheur, requiring a larger consideration from us. In a view to their consideration, these more important varieties may be divided into two classes, viz. of those which are of *standard make*, and of those heads which are *deviating* from the standard: and first of the standard, or that variety of head which, on the whole, is most frequently met with in practice. Examining the standard head of the fœtus, one of the first observations which I make upon it, and not the least important, is that it resembles somewhat the *egg* of the *ostrich*—a large oviform mass, the long diameters of which are lying between the front and back, as the short diameters are from side to side. In the measures of this oviform cranium, there is considerable variety, and it becomes the less requisite, therefore, that we should with accuracy recollect its dimensions. But though it is not necessary that we should bear in mind the precise number of lines and inches contained in the different diameters of the cranium—yet thus much is never to be forgotten, particularly when the birth is obstructed. I mean, that the long measures of the head are lying between the front and back, and the short between the sides. As, however, it is proper that you should not be unacquainted with the average measures of the head, a few words here will not be useless or misplaced.

From side to side, between the tuberosities of the *parietal bones* by which the head is now supported, an average measure may be about *three inches and a half*. Between the front and back, from chin to vertex, the average is about *five inches and a quarter*; and this is its greatest length. From the lower part of the occiput to the upper part of the forehead, the measure on an average is about *four inches*, and from the lower part of the forehead to the upper part of the occiput, about *four inches and a half*. The head measured in this manner at its different parts, giving different lengths, you will find in practice that it occupies more or less room, according to the position in which it lies with respect to the aperture that transmits it. I here exhibit a plane of mahogany, in which are *four apertures* of very *unequal* size, small, capacious, and intermediate, and yet I can so place the head, that it will successively fill all the apertures, and pass them all, small and large, with equal facility, as now demonstrated. Now the important fact to be carefully remembered, and which I wish to illustrate by this demonstration is, that the head must occupy much less room in the pelvis in some positions than in others. A meddlesome midwifery is a bad midwifery (frequently I shall repeat this axiom). In ordinary labour, the accoucheur has little to do: he sits at the bed side—he watches the progress of the labour—he supports the perineum—he receives the child—he ties the chord: in the first part of the labour his duties extend no further; nor is it necessary that he should consider the advantages or evils resulting from the varying positions of the head; but in cases of difficulty, Gentlemen, when the head is large, or the pelvis small, and you are compelled unwillingly to have recourse to manual or instrumental assistance, then, indeed, it becomes important to know in what position you can place the head, so as to occupy the least room. Now here is a contracted pelvis, and I will suppose a child were descending through it, feet first, that is, under the crural presentation; in a case like this, it would become my duty to assist the descent, as detention in the pelvis would endanger life in a manner hereafter explained. Now if I place the head (when at the brim) as here demonstrated, with the face in front, and the occiput on the promontory of the sacrum, the long measure of the head being opposed to that short measure of the superior aperture; the head, you perceive, could not be drawn through, nay, if I rectify this malposition, and lay the face and occiput respectively in the sides of the aperture, still if the chin be on one side, and the vertex on the other, the brim becomes filled completely, and the head passes not without difficulty; but if I gently draw the chin of the fœtus upon the chest, placing the head as I now demonstrate, so that the shortest of the three long diameters (that stretching between the summit of the forehead and the lower part of the occiput,) may correspond with the long diameter of the brim, you may here observe how large a space is obtained. Or, to give you another example: if the pelvis and head, being of standard dimensions, the face lie forward throughout the delivery, of course a difficulty is produced at the brim, the long diameter of the head being opposed to the short diameter of the aperture; and if, as here, I suffer the chin to start from the chest, so that of the three long diameters of the head, the longest becomes opposed to the short diameter of the brim, extraction, as you may perceive, becomes impracticable; but if I carry my knowledge of first principles into my practice, if I recollect the brevity of that diameter which stretches between the upper part of the forehead and the lower part of the occiput, and if by placing the chin on the chest, I bring this shortest of the three long diameters to a correspondence with the short diameter of the brim, you may see from this apparatus how readily the head descends. Cases of this kind will be fully considered hereafter; illustration is at present my object, and I wish, on this occasion, merely to impress on your minds the advantage of remembering in your practice, which are the longer, which the shorter measures of the cranium, and of giving positions to the head accordingly.

But to resume: the cranium of an adult we find to be compact and unyielding, but not so the cranium of the fœtus, for this possesses a degree of flexibility and conformability fitting it for certain changes of form and diminutions of bulk which materially facilitate its transmission through the pelvis; and this conformability of the head, a most valuable obstetric property, arises from the *nature* of the *sutures* which, instead of being compacted edge to edge, or united by serration, as in the adult, are put into connexion with each other by means of *cartilage*, a yielding substance which communicates to the head a degree of softness and conformability so well demonstrated in this model; and hence it sometimes happens, in consequence of this conformability, I mean, that although in the morning of the day the cranium cannot be abstracted, even with the lever or the forceps, and dexterously used, yet in the evening the head may descend easily enough, and the child may be born alive, as I have myself seen. In the morning, perhaps, the *os uteri* has been laid open, and the water has been discharged for a short space of time only, say for two or three hours, the head not having had time to adapt itself to the apertures, to alter its shape, to diminish its bulk; but in the evening, after the long-continued action of the womb, the form is changed, the bulk is diminished, and when prepared in this manner the head descends. Set down, therefore, among the valuable obstetric properties of the head, the comformability of the cranium, resulting from the yielding nature of the sutures and the *mobility* of the bones.

A knowledge of the position of the head being very important to the accoucheur, it becomes necessary that he consider the characters by which the different parts of the head may be recognised, while lying within the body of the mother, a topic to which I next advert. The *eyes*, the *nose*, the *mouth*, the *ears*, are easily distinguished by the eye, but a little attention is requisite to enable you to discriminate them while laying within the womb. I was once called in, in all haste, to a reputed facial presentation, the surgeon telling me, that he had put his finger into the *mouth*. On making an examination, I found the nates presented; the rest I leave you to divine. (Laughter.) Now there is more difficulty in recognising the mouth of a fœtus than you may suppose, because it is generally edentate, that is, destitute of teeth; and I remember very well, when I first had my finger in the mouth of an unborn infant, I scarcely knew where it lay. So with respect to the eyes and nose, you may not be able to distinguish them if you have not been in the habit of feeling them. After birth, and I advise you therefore in beginning practice, on every occasion when a child lies in your way, to pass your fingers over the nose, eyes and mouth, and indeed the other parts of the body, so as to acquire a familiarity with their tangible characteristics.

To recognise the vertex, the pelvis, and the parts, when lying within reach, you must be well acquainted with certain sutures, and those sutures are the *sagittal*, the *frontal*, the *lambdoidal*, the *coronal*, and perhaps I may say, the *squamous*; a knowledge of which is most desirable in midwifery. The sagittal suture, along which I now pass my finger, stretches from the front of the head to the back, uniting reciprocally the parietal bones. No suture has the accoucheur more frequent occasion to mention; its name is familiar to every obstetric ear. The frontal is that suture which is stretching from the sagittal to the root of the nose, sometimes open throughout in the full-grown fœtus —generally open at the superior part, where, as here shown, it meets the coronal and the sagittal. The coronal suture, next demonstrated, is that which stretches from one side of the head to the other, from ear to ear, crossing the sagittal and frontal at right angles, and connecting the os frontis with the parietal bones. The lambdoidal suture lies at the back of the head, on the occiput, resembling the Greek capital, as you see on this prepared cranium here, whence its name, and uniting the occipital bone with the ossa parietalia. On the sides of the head, as now demonstrated, the squamous suture is seated, and coalescing also with the os frontis it unites the squamous portions of the temporal with the parietal bones. The squamous on either side, the sagittal, the frontal, the coronal, the lambdoidal—these, then, are the sutures which it is important for the accoucheur to recollect.

When I examine the cranium further, with a view to ascertain the features by which it is characterised, I find there are two regions where the *osseous* matter is deficient; and these yielding under the touch, and appearing sometimes to pulsate a little, form what are called the *fontanels* or *moulds*, small and large. The former, situated at the point of meeting between the lambdoidal and sagittal sutures, is of triangular shape, small size, and has three sutures concurrent. The latter placed at the point of union between the sagittal and frontal sutures on the one hand, and the two lateral portions of the coronal on the other; distinguished by its romboidal shape, broad extent, and the meeting of *four* sutures there. And thus it is, that in my own practice I am enabled to discriminate these fontanels even within the person of the patient; the greater, by its large size, romboidal (diamond) shape, and the conflux of four sutures—the less by its smaller size, triangular shape, and the communion of *three* sutures; the latter characteristic being less decisive, however, because, at the conflux of the coronal and squamous, there are three portions of sutures also. These fontanels are sometimes larger than at others. Little portions of bone (*ossa triquetra*) are occasionally interposed between the edges of the sutures, which, narrow sometimes, are occasionally broader than ordinary. But to conclude: in the head of the fœtus, the parts deserving obstetric attention, are the form of the head, the measures, the conformability, the sutures, the fontanels, not to mention the more familiar features by which the different parts are recognised.

Deviations from the Standard Head.—The standard head considered, we next proceed to comment on the deviations from the standard, so far as these are important in the practice of midwifery. A head unusually small, of which specimens are laid on the table before you, giving rise to no difficulty in parturition, is of little interest. But when large, as in this specimen, it deviates from the standard and difficulties during the birth are the result, more especially if the cranium be too firmly ossified, and the pelvis do not exceed the ordinary dimensions. In cases of this kind, however, these difficulties may be easily managed, according to the rule already laid down—always recollecting that a meddling midwifery is bad; when you suspect there is a large head, you are first to give a fair trial to the natural efforts for four-and-twenty hours after the discharge of the liquor amnii, provided no dangerous symptoms appear; the dangerous symptoms beginning on the natural efforts failing, four-and-twenty hours after the discharge of the liquor amnii, the head not advancing, you are, I conceive, justified in having recourse to instruments, (the lever or the forceps I mean,) never to be used without an overbearing necessity. If, again, you fail in trying the lever and forceps, and dangerous symptoms manifest themselves, or if six-and-thirty, or eight-and-forty hours have elapsed after the discharge of the waters, the head making no progress; you would then, I conceive, be justified in laying open the child's head, proceeding on the same principle as in cases of contracted pelvis. The management of this case, therefore, is exceedingly simple; to be conducted on general maxims, no nice measurements of the pelvis are required, no uncertain conjectures respecting the bulk of the head; the rule here given emancipates you from these difficulties; the natural efforts as usual, are to be fairly tried; nor may you lay your hand on instruments, till compelled by a necessity which is inexorable.

Again, we sometimes find, that in consequence of *compression* in labour, the head changing, deviates much from the standard and becomes an important obstetric study. Under the facial presentations, though not universally, yet frequently, the blood accumulates, the features swell, and altogether the parts are so much changed, that you have some difficulty in recognising them, even when the child is under your eye, and much more so when it lies within the pelvis. The same with respect to the vertex, for where there is a want of room, where there is a rigidity of the softer parts, and the head does not lie in position favourable for transmission, you may find the parts about the cranium swelled in such degree, that it resembles the breech more than the head; aye, and you may have been in obstetric practice for a considerable time, and may boast some hundreds of cases under your care, and yet feeling the swelled head, the first time you may not be able to distinguish it from the breech; a piece of tact, which is to be acquired solely by taking every opportunity of examining those swelled heads after the children are born as well as previously.

The head you will sometimes find enlarged in great degree, from the disease called *hydrocephalus*; a morbid affection by no means very uncommon before delivery, and which I have more than once encountered in my own practice; known on diligent examination by puffiness of the vertex, by subobscure fluctuation there, and by a sagittal suture unusually broad; broad, for example, as the three fingers: characteristics, all of them well demonstrated in this specimen. Where the head is hydrocephalic, you may, if you please, carry your hand into the uterus; you may, if you pleaae, burst the vagina; if you please you may rupture the uterus, turn the child, and pull its head from its body; but have some little mercy. I will not say it is never necessary in cases of hydrocephalus, to turn the child by introducing the hand, but surely such necessity is rare. Meddlesome midwifery is bad, the operation of turning, trifling sometimes, is sometimes tremendous; among the young and the interesting, among the matronly and the respected, how many have been its victims; give, therefore, a trial to the natural efforts, by the wise accoucheur never hastily distrusted; then the natural efforts failing, you may puncture the head, should the lever or forceps, as generally in these cases, be previously tried without success. Under the natural efforts, when the pains are strong, the cranium sometimes bursts open, or the spaces between the sutures being large, the head may become compressed, and notwithstanding its extraordinary bulk, may unexpectedly emerge.

There is yet another variety of the head of no small importance in practice, I mean the head of the *dead* fœtus. For where a child has been dead in utero, perhaps, for days before parturition, or where it has died at the very commencement of the labour, you will find it undergoes conspicuous and tangible changes. The skin softens, the cuticle desquamates, the brain is pulpified by putrescence, and the contexture of the bones being dissolved, the different pieces of the cranium separate from each other, so that, as Dr. Hunter used to express it not inappositely, though quaintly, "the scalp with its bones feels like so many nut shells in a bag." Now if you find in this way that the head is softened, that the cuticle is coming away in flakes upon the finger, that the cranial commissures are thoroughly dissolved, (the bones detached from each other floating, as it were, upon the pulpy brain,) you may look on the decease of the fœtus as certain. That the mother have not felt her child for weeks together, is no decided proof. This mobility of the bones alone deserves no reliance whatever. Cuticular desquamation itself (possible in consequence of cutaneous disease) is an ambiguous indication; the total dissolution and breaking up of the bony structure of the cranium is the best, and perhaps the only certain sign of death. Many a child, rashly pronounced to be dead, breathes and cries immediately on leaving the vagina; and the recollection of these acknowledged truths may, I trust, hereafter paralyse some prurient murderous hand, too eager for the perforator.

I shall conclude my remarks upon those fœtal heads which deviate from the standard, by observing that we sometimes meet with heads without brains, and I here show a specimen, unique, no doubt, and the only one to be met with in this theatre. (Laughter.) By the Germans, in consequence of their resemblance, these crania are called *cat's head*, a denomination by no means inappropriate. The bones of the occiput, front, sides, and summit, are wanting, while those which form the basis cranii are perfect enough. This defective organisation I the rather notice, because where it occurs, and where the accoucheur is not in full possession of the confidence of the family, it leads sometimes to an ill-grounded suspicion, that the cranium has been laid open. Observe, therefore, the specimen here submitted to inspection, and recollect that this is nothing more than a particular variety of monstrosity, on the whole not unfrequent. Within the circle of my own obstetric acquaintance, four or five examples of this brainless monster have occurred, and in two instances gave rise to unpleasant and unjust surmises.—*Et hæc hactenus.*

Presentation and Situation.—Before I enter on the next important topic, I mean the passage of the full grown fœtus through the pelvis, it may not be amiss that I should explain to you the meaning of two obstetric terms of frequent use—presentation, I mean, and situation. By *presentation*, the accoucheur, accurate in his language, understands that part of the child which is found lying over the centre of the pelvis. Thus, in the illustrations I here give you, the arms, the face, the breech, the legs, and so on, constitute the presentations, for these are lying successively over the centre of the pelvis. By the *situation* of the child, when speaking of its passage through the pelvis, we mean the place of it, with respect to the surrounding bones. Thus, in the illustration here given, the vertex of the child presenting one ear is situated on the symphysis pubis, and the other on the sacrum; the face on one side of the pelvis, and the occiput to the other. Again, the arm presenting as here; the head is situated on the one os innominatum, the body on the other; the abdomen in front, and the back in the posterior part of the uterus. So, then, to drop a more extended exemplification, in the accuracy of obstetric language, by presentation we mean that part of the child which is lying over the centre of the pelvis; by situation, the place which the child holds with respect to surrounding bones.

When we meet again, I shall resume.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE V.

On the Thermometer, and the Nature of Heat.

GENTLEMEN,—The last Lecture was occupied by endeavouring to make you understand the action of heat, in producing the expansion of bodies; at present, we shall consider the apparatus usually employed for the admeasurement of the degrees of heat—namely, the thermometer.

Now, the thermometer, in itself, is a very simple instrument; a certain quantity of a fluid is enclosed in a vessel, allowing its expansion or contraction to take place with facility, and it is generally found, that if we mix equal quantities of the same fluid, at different temperatures, the cold portion will expand as much as the hot portion contracts, and that the resulting temperature will be the mean; so that, it appears, that as much heat is gained by one portion as is lost by the other. Upon this principle, thermometers are constructed. It is assumed, that if 10° of heat be taken from a cold, and added to a heated body, that the expansion of the one will be equal to the contraction of the other; simply supposing, that the increase of bulk is equal to the increase of heat, between 32° and 212°, which is the ordinary range of the thermometrical scale. Without taking you far into the history of the thermometer, I may just observe, that the first which was constructed upon truly scientific principles, was that invented by Sanctorio, of Padua. He confined a portion of air in tubes, which, by its contraction and expansion, was used to exhibit the alternations of heat and cold. This instrument was very imperfect, and extremely inconvenient, from the rapid and great dilatability of air, by moderate changes of temperature; but principally on account of the pressure of the atmosphere on the column of fluid at different altitudes. The Florentine academicians were the first to employ a solid body instead of air, the advantage of which is very evident; but, upon the whole, it was an useless instrument, if we speak of it in comparison with those now constructed. This instrument was a bulb containing spirit of wine, and closed so as to exclude the influence of air, and to prevent the co-operation of this fluid. Now, this served to show, very well, the amount of increase or decrease of temperature in a given body, but it did not allow of any accurate comparison being made with others; for there being no fixed point at either extremity of the scale, the graduation was arbitrary, and no two instruments, when placed in the same temperature, indicated the same degree of heat. You will find, in the proceedings of the Florentine Academicians, drawings of various instruments made on this principle, but they were of no use, except by direct comparison. All these, however, have been far surpassed, by contrivances of a later date; so that, now, thermometers are constructed with an extreme degree of nicety. The thermometer, as now constructed, consists of a glass tube, having a bulb at one extremity, for the fluid to be employed, and hermetically sealed at the other. In selecting a tube for the manufacture of a thermometer, care should be taken to see that it is perfectly cylindrical and perfectly clean; and if the column of mercury inserted, be equal in all parts of the length of the tube, it shows that it is quite straight. Then a bulb is blown by heating the end of the tube, and by forcing air into it from a caoutchouc bottle, attached to the other extremity of the tube, until the bulb becomes of a sufficient size. The caoutchouc is necessary, because the moisture of the breath would destroy the tube for the purpose intended. The next point is to get the fluid into the bulb, which is intended to be used to show the degrees of expansion, which will be hereafter explained. Now two fluids are, at present, usually employed for this purpose, alcohol and mercury, the former being very well suited for the indication of extreme cold, from the fact of its not freezing; and mercury, as it boils only at a very high temperature, is a very good substance for showing great degrees of heat. The main difficulty to be overcome in establishing what states of temperature should be considered as the fixed points from which to reckon the degrees, remained to be overcome; and Mr. Boyle has the merit of having suggested that point, at which water is converted into ice, as the zero; and Martin gives Dr. Halley the merit of fixing upon the boiling point of water as a standard of graduation, which elevates the quicksilver in the thermometer tube always to a given point, under given barometrical pressure, and the mean pressure of thirty inches is generally understood to be that at which our thermometers are graduated.

Now, the three thermometric scales at present most in use in Europe, are those of Fahrenheit, Reaumur, and the centigrade. Fahrenheit's scale commences at the temperature produced by mixing snow and salt, being at 32° below the freezing of water, which point, therefore, is marked 32°, and the boiling point 212°, the intermediate space being divided into 172°. In Reaumur's scale, the freezing point is zero, and 80° the boiling; and in the centigrade, the space between these two is graduated into 100°. Now it will frequently happen, that during your chemical studies, you will find temperatures mentioned, reckoned according to one or other of these scales; therefore, it is very necessary that you should know how to compare these, so as to ascertain the equivalent degree on the one scale, for any given degree on another. There are some thermometers, on which the degrees are marked off, according to these three scales; but if you should not be in possession of such, you may easily reduce Fahrenheit to Reaumur, if you recollect that each degree of the former is equal to four-ninths of a degree of the latter; and that, if you take any degree of Fahrenheit, subtract 32°, multiply by four, and divide by nine, and the result will give you the corresponding degree of Reaumur. To reduce Reaumur to Fahrenheit, you multiply the degree by nine, and divide by four; to the product, 32° must be added. Each degree of Fahrenheit is equal to five-ninths of a degree on the centigrade scale; so that, if you multiply any degree of Fahrenheit, having first substracted 32°, then multiply by five, and divide by nine, you will obtain the corresponding degree on the centigrade scale—and *vice versa*.

You will understand then now, upon what principles the thermometers are graduated, and how far they are to be depended upon as measures of heat. Mercury being very equal in its expansion, is for general purposes preferred; and spirit, as it is never frozen, being well adapted for the admeasurement of low temperatures. Linseed oil was employed by Sir Isaac Newton to fill his thermometrical tubes, and he assumed the boiling and the freezing of water as the fixed points; it is a liquid, however, very inconvenient on account of its viscidity, and from the irregularity of its expansion. A great variety of thermometers are in use, but for common purposes, you cannot have a better than the spirit thermometer, which is a very simple instrument; the bulb is usually protected by a brass shield, but for measuring the heat of fluids, the bulb should be bare. You may have the scale marked upon the tube, or you may have the scale inserted into the tube, containing the spirit or mercury. (Mr. Brande then showed the class a great variety of these instruments, marking the gradual improvement that had taken place in their construction.)

Now of course the indications of the thermometer become unavailing, when we arrive at temperatures at which mercury boils, which is about 500°; the thermometer is unavailable, because the tube containing the mercury would burst, and we must have recourse to another mode of ascertaining the increase of temperature beyond that point. Such a mode was long since suggested by Mr. Wedgewood, who, observing the differences produced in the bulk of clay on exposure to a strong heat, took a piece of clay, measured it, and then submitted it to a powerful heat; and by comparative experiments of this kind, he endeavoured to establish, by the degree of shrinkage of a given bulk on exposure to a given heat, the absolute heat of any furnace beyond that point by the comparative shrinkage. But as Sir James Hall has correctly observed, the shrinkage of the clay is the same when submitted to a red heat for a quarter of an hour, as when exposed to a white heat for five minutes; and hence a great door was opened at once to fallacy in arriving at any conclusions from this test of heat. The shrinkage, as it will be seen, depending rather upon time, than upon the degree of heat to which the clay was submitted. The metals are not, however, liable to that objection; and here is an instrument invented by Mr. Daniel, which I will explain to you. A platinum bar is inserted in the centre of a cylinder of black lead ware, as it is called, which bears a great degree of heat, and from the top of the platinum bar, a wire was passed over the axis of an index. He established by various experiments a sort of accordance between a scale which he attached to the index and the scale of Fahrenheit, and he considers that the boiling point of mercury would be about 92° upon his pyrometer, or equal to 644° of Fahrenheit; that the point of fusion of tin would be about 63°, or equal to 441° of Fahrenheit; bismuth 66°, or equal to 462°; lead 87°, or equal to 609°; cast iron 497°, or equal to 3477° of Fahrenheit.

If you take a bar of brass and steel, rivet them together, and lay them on a flat surface, the brass contracts more rapidly than the steel, so that in cold weather the steel will be bent upwards, and in hot weather in the other direction. This principle has been applied to the manufacture of the pendulum of clocks, and also to the balances of watches and chronometers; and when we consider the great minuteness of watch-work, we cannot but feel surprised at the great degree of perfection at which this compensation balance, as it is called, has been brought. The chronometer taken by Capt. Parry to the North Pole, varied a very few seconds only during the voyage, on account of the compensation of the balance by the different degrees of expansion and contraction of the metals of which it was composed. These things belong, however, more to the mechanical than to the chemical philosopher.

Here is an instrument, which has been an apple of discord in the philosophical world, especially between Count Rumford and Mr. Leslie; Count Rumford said, he had discovered it, and he called it a *thermoscope*, and Mr. Leslie called it a *differential thermometer*. Van Helmont, however, has described a similar instrument, and has made the same application of it as these two philosophers have done. It has been called a differential thermometer, on account of its showing the difference of temperature between the two balls. Now, remember that this thermometer merely indicates the degree of heat given off by bodies, and thus becomes a measurer of that quantity of heat, which bodies are capable of absorbing or communicating under ordinary circumstances; but it is by no means a measurer of the quantity of heat contained in bodies. It consists of two large glass bulbs containing air, united by a tube twice bent at right angles, containing coloured sulphuric acid. When a hot body approaches one of the bulbs, it drives the fluid towards to other. Its principal advantage is, that in making delicate experiments, the general changes of the atmosphere do not affect it; but you must remember, that it only indicates the difference of temperature between the two balls. Sometimes a simpler form of air thermometer is used, consisting merely of a bulb with a tube at one extremity, which is plunged into coloured water, that is made to stand at any convenient height in the tube, by expelling a portion of air by the application of heat. As the air in the bulb may be heated or cooled, the fluid will rise or fall in the tube, and such variations may be marked by affixing a scale on the instrument.

Speaking of the *quantity* of heat, it must be borne in mind, that there must be twice as much heat in a quart of water as in a pint, yet the thermometer will only indicate the same degree of heat; the quantities of heat which bodies, in the same state, require to raise them to the same thermometric temperature, is called their *specific heat*, and those bodies requiring most heat for that purpose, are said to have a greater *capacity* for heat. Dr. Black, of Glasgow, first showed, in his lectures in 1762, that the quantity of heat in different bodies of the same temperature, was different.

It has been said, in proof of the accuracy of the thermometer, that the mixture of equal volumes of the same fluid at different temperatures, will give the arithmetical mean of the temperature of the two; and that a mixture of a pint of hot and cold water will afford the mean temperature of the two, as indicated by the thermometer previous to mixture; but if you take a quart of oil, and a quart of boiling water, as indicated by the thermometer at 212°, and mix them, you will find if you attend carefully to what takes place, that the mixture will not possess the arithmetical mean of the two, but that there will be a certain quantity of heat absorbed. Now, it was to determine how this happened, that Lavoisier and La Place commenced a series of interesting experiments. They took a vessel properly constructed, into which they put a quantity of ice; and into the centre of this vessel, they put a given quantity of boiling water; the whole was then covered up, and so contrived, that the quantity of ice thawed in the cooling of the water, from the boiling to the freezing point, could be ascertained; and it was found, that twelve ounces of ice were thawed. They then took a quantity of oil heated to the same temperature as the boiling water, 212°, and they found that, on cooling the mass down to 32°, only six ounces of water ran out of the ice; so that they inferred, that the quantity of heat in the water, to that of the ice, was as 2 to 1. There are experiments, which might be made to show the same thing, namely, that the degree of heat, as shown to belong to bodies by the thermometer, differs from the absolute quantity of heat they contain. You will see, from this table, (pointing to one behind him,) the resulting temperatures of a mixture of bodies at different temperatures. Thus two portions of water mixed together, at

50° & 100° } afford a mean of 75°.

Water at 50°, Mercury at 100°, } a mean temperature of 70°.

A pint of water at 50°, A pint of oil at 100°, } a mean of 80°,

The *capacity* of bodies for heat is very different, and when you change the form of bodies you change their capacity for heat; and this is the case with regard to solids, liquids, and gases. On condensation, solids lose their capacity for heat; by hammering iron on an anvil you squeeze out the heat from it, to use a vulgar phrase; but if you put it into the fire it again expands, and if allowed to cool gradually it again retains, when cold, the same degree of heat as before it was hammered. Now if you mix together two fluids, so that by their admixture their density shall be increased, as by mixing together oil of vitriol and water, a quantity of heat will be evolved, or the capacity of the bodies for heat, in other words, is diminished. On the contrary, if you suddenly expand or rarefy air, it becomes cold; the air in expanding has its capacity for heat increased, and whence is it to get its supply of heat but from itself? It is, therefore, clear, that if you compress air you produce proportionably a quantity of heat, and with a syringe of this kind by a small stroke of the piston you may set free so much heat from the air contained in the cylinder as to set fire to a piece of tinder attached to the piston.

Now it is easy to see how these facts bear upon natural temperature; as the air ascends it becomes rarefied, and cooling, deposits its moisture on the mountain tops; and on the other hand, as it approaches the earth, it becomes more dense, its capacity for heat is greater, it absorbs moisture from the earth's surface, which being conveyed in its turn to the upper regions of the atmosphere, is again deposited in the form of rain and dew, or snow and hail, as the temperature of the medium through which it has to pass may be hot or cold. The temperature of mines may be easily accounted for by the increased pressure to which the atmosphere of the mine must be subjected by the weight of the column of air above it.

In the next lecture the various *conducting powers* of bodies in regard to heat will be considered, and also the nature of *latent* heat.

LECTURE VI.

On Heat.

GENTLEMEN,—It happens, that when different bodies are exposed to the same source of heat, they allow it to pass through them with unequal velocity, and the body is said to have a greater or less *conducting power* in proportion to the celerity or tardiness with which it becomes cooled down to the temperature of the surrounding atmosphere.

Among the solid bodies, down, feathers, wool, cotton, and other light and porous articles of clothing, are bad conductors of heat, and are therefore chosen for that purpose; next to them we may rank light earthy bodies and wood, and from some experiments of Professor Mayer, of Erlangen, it appears that the conducting power of different woods is in proportion to their density, as you will see by the table behind me. Thus, assuming water to have the specific gravity of 1.000, and its conducting power 10, the conducting power of ebony wood will be 21.7, and its specific gravity 1.054; apple tree 27.4 and 0.639; ash 30.8 and 0.631; beech 32.1 and 0.692, and so on. Next to them we may name silicious and hard stony bodies in general; then glass, the topaz, and the diamond. But of all solid bodies, the metals are best conductors, and silver, gold, and copper are better conductors than platinum, iron, and lead.

Liquids are bad conductors, and on this subject we may advert to the experiments of Count Rumford. He took a large glass jar of this kind, having filled it with warm water, he put at the bottom of it a lump of ice; the water about the ice formed a stratum of ice-cold water, as was shown by immersing a thermometer into it, and it required a long time to make that water warm. But there is a number of simple experiments to show the same thing. In the process of distillation, you know that the steam enters the worm tub at the upper surface of the water, and the water in the upper part of the tub will become almost boiling hot, whilst the water in the bottom of the tub remains quite cold; therefore, when we wish to heat a mass of water, we do not apply the heat at the top, which would be an endless job, but we apply to the bottom of the vessel containing it, and the ascent and descent of the heated and cold portions of water constitute the phenomena of boiling.

Now here is an apparatus with which the bad conducting power of water may be easily shown: we have an air thermometer immersed in a vessel of water, and you will find, that although we apply heat to the surface of this liquid, we shall in vain look for any elevation of temperature in the water beneath. The water about the fire becomes very hot, and that stratum of the water will remain hot without communicating the heat downwards, and consequently without producing any effect upon the air thermometer below. I might show you a number of experiments to prove, that if fluids do conduct heat, they conduct it very imperfectly. You might boil the surface of water in a vessel in which ice was at the bottom. Another mode of determining the same fact is this; you take a glass cylinder, in which an air thermometer has been placed, and you pour some boiling oil on the surface of the water; the thermometer does not rise, although it may be held very near to the surface of the water. It has been found, however, by experiments made with extreme caution, and taking into account the conducting power of the sides of the vessel, that heat does ultimately make its way downwards through the liquid; but it must be still considered that fluids have a very weak conducting power.

Air is an equally bad conductor as water, and indeed worse; you may make substances red hot in the air contained in the upper part of a vessel, yet the air below will remain cool; this experiment, however, is difficult to show in a class room. We arrive, then, at this general conclusion, that heat passes through solid bodies with various degrees of retardation of its progress, and that it passes through them equally in all directions. We find that different solids retard the heat very differently, as shown in their different conducting powers; and in regard to liquids, we find that they are all very bad and very imperfect conductors of heat, the exact conducting power of each not having been determined, and that air is a still worse conductor of heat. I may refer you to the experiments of Count Rumford, described in the Philosophical Transactions of 1792, respecting the conducting power of different materials used as clothing. He heated the thermometer to 100°, and having enveloped the bulb in different kinds of material, he measured the time it required to come down to the temperature of the atmosphere, and he found that that time was directly according to the conducting power of the substance in which the thermometer was enveloped. The relative conducting powers of wood, metal, and other substances, are shown in a number of familiar applications, as when wooden handles are fixed to metallic tea-pots. The experiments made by the late Lord Stanhope may be mentioned as showing the different conducting powers of wood and the metals. He placed a piece of paper around a metallic cylinder, and held it over the flame of a candle. (Mr. Brande repeated the experiment.) It will be long before the paper will burn, and the reason is very easy to see, the heat is diffused over the surface of the metal, as fast almost, as it is communicated to the paper; but if you envelop a piece of wood with paper, and expose it in the same way to the flame of a lamp, the heat is not rapidly distributed, and therefore the paper speedily burns.

We now proceed to another very important part of the subject of heat, namely, that which relates to its effect upon the *state* or *form* of bodies.

We purposely avoid entering here into the state of heat, as connected with decomposition, or chemical change. It is very generally known, that when solids are heated they have a tendency to become liquid, and liquids to be converted into gaseous or aëriform bodies; cool a liquid and it becomes solid; this is generally the case, and you have a familiar illustration of this fact in the case of water and ice. Heat water and you convert it into steam; the steam, as it cools, becomes converted into water, and the water, on further cooling, into ice. We are indebted to the late Dr. Black, of Glasgow, for an important series of observations upon these subjects, and his researches deserve to be ranked among the most admirable efforts of experimental philsophy. I shall endeavour to give you an abstract only of these experiments, because to enter into detail would require too much time. In prosecuting his investigations, Dr. Black was forcibly struck with the extreme slowness with which ice thaws. If, for instance, you bring ice into a warm room, it is a long time before it begins to run down into the liquid state; and there is a still more remarkable fact, which is this, if you put the bulb of the thermometer into the ice, it will fall to 32°, and will remain there until the whole of the ice is melted. Now it is clear that heat is communicated to the ice from the surrounding atmosphere of the room, and yet the effect of that heat is not to elevate the thermometer, but to melt the ice. Suppose you make the experiment with water instead of ice; you take a portion of water at 32°, and put into it a piece of ice; you bring the vessel, containing the water and the ice, into a room, the temperature of which is at 60°; you will find that the temperature of the water will ascend gradually to 60°, but the temperature of the ice will not ascend until the whole is melted, and then it rises. The Doctor called the heat, absorbed during the melting of the ice, the heat of fluidity, and having observed it to affect the state of the body without raising the thermometer, he called it *latent heat*, or the quantity of heat conducing to make the ice liquid. He then proceeded by a new series of experiments, to determine the quantity of heat that became latent during the conversion of ice into water, and he found it very considerable. He did this in two ways: in the first, he brought the ice into a warm room, and ascertained the time required to thaw it; he then estimated the quantity of heat which had entered the ice in that time.

In another suite of experiments, he mixed a quantity of snow and finely powdered ice with a quantity of boiling water, and he observed that a quantity of heat suddenly disappeared to liquify the ice. Here are the results of one or two of his experiments, set down on these tables. He mixed water at 32° with water at 212°, and he found, as he suspected, that the mean was 122°; but on making the experiment under the same circumstances, but taking *ice* at 32° and water at 212°, he found that the mean temperature was only 52°; so that, you observe, a large quantity of thermometric heat disappeared in order to melt the ice. He then found, that when he took ice at 32° and water at 172, the result was a quantity of ice-cold water at 32. Here the water was cooled 140°, while the *temperature* of the ice was unaltered, that is, 140° of heat disappeared, the effect being not to increase temperature, but produce fluidity. You see what an immense loss of heat there is in the conversion of ice into water; and you observe that the thawing of ice must, under ordinary circumstances, be only a slow process, and hence it is that natural temperatures are changed by very slow degrees; you have not a sudden transition from heat to cold, but a gradual and slow change of temperature.

Having made these experiments to determine the quantity of heat, or the thermometic quantity of heat in water, it next occurred to Dr. Black, that the liquifaction of other solids ought to be obedient to similar laws. He took a piece of lead, and he found that, until all the lead was melted, he could not raise the temperature of the melted lead beyond a certain point; but as soon as the whole mass was melted, he could convert it into vapour by increasing the temperature. There is, of course, a different degree of heat necessary for the liquifaction of different substances. In the case you have just seen, of mixing a quantity of powdered ice with hot water at 172°, you perceive that there is a sudden loss of 140 degrees of heat; but whenever you liquify a body, it must of course produce cold, and if you set out with bodies already very cold, you will still lower their temperature, and we often produce artificial cold of great intensity by the rapid solution of certain saline substances in water. Mix together common salt and ice; in consequence of the action of the salt upon the ice, a quantity of water will be immediately produced, and a portion of the salt be dissolved, forming brine; if we examine the temperature of the brine, we shall find that it is many degrees below the previous heat of the ice, many degrees of heat having been taken from the ice by the liquifaction of the salt; and this is the common process of obtaining a large degree of cold, artificially, by purging mixtures, and so on. If you dissolve a salt in water, you will find that there is a great lowering of its temperature. Here is a mixture of sal-ammoniac and nitre, and if you dissolve them in water, especially if the water be cold, there is a sudden lowering of the temperature, in consequence of the sudden liquifaction of the salts, and you may, without difficulty, freeze small portions of water in this way. Here is nitrate of ammonia, which dissolves rapidly in water, and produces a considerable degree of cold. Take equal portions of nitrate of ammonia and water, the cold produced on the dissolving of the salt is very considerable, and of course the colder the vessel the more immediate the effect would be. I should observe here, however, in making these experiments, that you should use the salts recently crystallised and finely powdered. This table shows the results of some experiments made on this subject by Mr. Walker; he found that, on dissolving the salts, here set down in water, the thermometer sinks as indicated.

MIXTURES.	Parts	THERMOMETER SINKS.
Muriate of ammonia Nitre Water	5 5 16	From 50° to 10°.
Nitrate of ammonia Water	1 1	From 50° to 4°.
Sulphate of soda Diluted sulphuric acid	5 4	From 50° to 3°.
Snow Common salt	1 1	From 32° to 0°.

Thus you see that considerable degrees of cold may be artificially produced, and by mixing together some substances, in different proportions, you may carry the temperature down to 90° below zero, as by mixing ten parts of diluted sulphuric acid with eight parts of snow, the thermometer sinks from 68° to 91°.

Now it becomes necessary to show you the converse changes, namely, to show you that heat would be evolved when fluids are converted into solids. When you freeze water, you must let out a certain quantity of heat, and whenever you condense a liquid, or bring a liquid into a solid state, there is a great evolution of heat. I need only to present you with a single instance: if you condense water by pouring it upon quick lime, it enters into composition with the lime, and in consequence of this rapid condensation, you know that a great degree of heat is evolved, often sufficient to set fire to shavings of wood, and other combustible bodies, which may happen to be near. The crystallisation of Glauber's salt is attended with a sudden evolution of heat, and this happens in all cases where you convert a liquid into a solid; congelation, therefore, is to the surrounding bodies a heating process, and liquifaction a cooling process.

Dr. Black having made out these facts, in regard to the conversion of liquids into solids, and solids into liquids, then proceeded to examine the effects of heat upon liquids themselves; and here there is a circumstance closely corresponding to that already pointed out, in regard to the thawing of ice in a warm room; if you put a portion of water over a lamp, and immerse a thermometer in it, you will find that the thermometer will go on rising until the water boils, but the moment it boils, the thermometer shows no further increase of temperature. Dr. Black proceeded to examine the cause of this interesting phenomenon. There is an increase of heat applied to the vessel, but there is no increase in the temperature of the water, the effect of that surplus heat being to convert the water into steam, which contains a large quantity of latent heat, but condense the steam into water, and a large quantity of heat is given out. Before I state to you Dr. Black's experiments, to determine the quantity of heat thus believed to be consumed in the conversion of water into steam, it will be well to advert to the boiling of liquids generally. Now they boil at different temperatures, and yet the boiling point of water, for example, is often spoken of, as if that were an invariable point of temperature, whereas nothing can be more variable; it depends very much upon the pressure to which they are subject; and when we say that water boils at 212°, we mean that it does so under the pressure of an atmosphere equal to a column of thirty inches of mercury, or thereabouts, equal to about 14 or 15 pounds upon each square inch. Of course, if you diminish the pressure, you diminish the temperature of the boiling point; and if you increase the pressure, and put two atmospheres upon the water instead of one, the boiling point will be increased. Accordingly, as you find that the atmosphere is always varying in its pressure on our earth, the boiling point of water is always changing, sometimes being at 208°, sometimes at 210°, sometimes at 212°, and so on. Another cause which influences the boiling point, is the nature of the vessel in which the liquid may be heated. In glass vessels, liquids boil at two or three degrees higher temperature than in metallic vessels, because glass is a more irregular, and a worse conductor of heat than metal. But if you introduce a bad conductor into the vessel, as a few shavings of wood, you will find that the boiling point will be lessened, that is to say, under the mean atmospheric pressure. If then you ascend a mountain, of course you have a less atmospheric pressure, and the water will boil at a less temperature. Saussure accordingly found, that on the summit of Mont Blanc, water boiled at 187°; and, on the contrary, in a deep mine, it will boil at a high temperature, because then the atmospheric pressure is greater, in proportion to its depth. The Rev. Mr. Wollaston constructed a thermometer so nicely, that he could tell the difference of temperature in the different stories of a house, and he proposed to determine the heights of mountains, by forming a scale from it. The thermometer is so delicate, that it is seldom employed in barometrical experiments generally resorted to.

Now, to show you that pressure influences the boiling point with extreme facility, we may introduce under the receiver of an air-pump a small quantity of warm water, and we shall find that the water will boil at a much less temperature, than when exposed to ordinary atmospheric pressure. Again, if we increase the pressure, it will boil at a greater temperature; and it is of importance to us to know, that the temperature of the steam is always the temperature of the liquid, at the time of boiling; and we shall be able, by and by, to show you that water boils at a temperature below the freezing point. Other liquids, such as the spirit of vitriolic æther, and so on, will boil at the common temperatures of the atmosphere, when placed in an exhausted receiver of an air-pump; and were it not for the pressure of the atmosphere, we should have all liquids converted into a gaseous or aëriform state. We use the term boiling, therefore, to express the conversion of a fluid into vapour.

There is an experiment called the chemical paradox; because the manner in which the experiment is made, and its effect, are very paradoxical. Here is a Florence flask, to which is appended a stop cock; you put some water into it, and cause it to boil; you have then an atmosphere of steam upon the water which is invisible, you turn the stop-cock, and the boiling ceases. You plunge the vessel into cold water, the water will again boil, because the steam has been condensed, and the pressure of the atmosphere of steam is taken off from the surface of the water.

There are a few facts remaining to be noticed, which must be deferred to the next lecture, when the circumstances under which heat disappears will be pointed out, and the subject concluded.

WESTMINSTER MEDICAL SOCIETY.

H. Mayo, Esq. in the Chair.

After the minutes of the preceding meeting had been read, and some private business transacted,

Mr. Duncan rose, to give an account of the highly interesting case of aneurismal disease in the temporal arteries, at present in the Hospital of Surgery, and which has been already so fully detailed in the previous Numbers of The Lancet, in which he made a very full, clear, and candid statement of the appearances of the disease, and of the history and progress of the patient; and after relating Pelletan's opinions and practice, in a similar instance, proposed, as questions of great importance for the consideration ~~of~~ the Society; 1st, What are the true anatomical characters of this tumour? 2d, Does it consist of mere dilatation of arterial branches, of a varicose state of the temporal veins, or like nævus maternus, is there any distinct parenchyma through which the blood circulates? 3d, Is the loss of the eye referrible to the operation, or to the disease of the brain? and 4th, What is the plan of treatment most advisable at present, the tumour having again increased considerably in size? To these interesting points, Mr. Duncan begged to call the attention of the Society, hoping that the members would be able to throw some light on them, which might be of use to the patient, at the same time acknowledging his own inability for the task.

Dr. Barry passed a very high encomium on Mr. Duncan, for having brought forward this very interesting case, and likewise, for the very correct manner in which he had detailed its features. He had seen the patient, both before his admission into the Hospital of Surgery, and frequently since, and had paid a great deal of attention to the case. He neither considered the disease to be one purely affecting the arteries, nor the veins, but he thought that a new structure had been developed, which communicated with both, and which resembled what has been denominated by the French "erectile tissue." He had observed, that when the main artery, (for the tumour had several inosculating branches running to supply it,) was compressed, the pulsation was diminished, and the size of the swelling considerably lessened. He thought that the disease bore much analogy to a case related by Dr. Frost, in which, from the wound of the femoral artery and vein from a shot, several bleeding tumours had formed in the limb, which, on dissection, were found to consist of a parenchyma, communicating with small arteries and veins. A full account of the present case had appeared in The Lancet, from very able hands; but there was one statement which he did not think correct, viz. That the pulsation of the tumour was not synchronous with that of the heart. In regard to the subsequent line of treatment, he thought that the tying some of the vessels, which still supplied the tumour, particularly the one coming across the vertex of the head, and that from the occiput, would be attended with advantage. He had strongly advised the ligature of the carotid, when Mr. Wardrop did him the honour of consulting him on the propriety of that operation; and he thought, that from the number of successful cases related, where that vessel had been tied in disease of its branches, he had a right to expect a cure.

Mr. Babington, at the request of the Chairman, observed, that the patient had been originally under his care, but that he had not seen him for the last four months. He had considered the disease to be one of pure varicose enlargement, and accordingly, had attempted to secure the temporal vein below the tumour. During the operation, however, he found great difficulty in separating the vein from the artery, and therefore he included both in a ligature. This operation had the effect of diminishing, for a time, the size of the swelling, which, as long as he had observed it, never appeared as if about to burst. He considered that in this case the cranium was affected, but at the same time observed, that there was much difficulty in forming a correct diagnosis on this point, as bloody tumours of the scalp frequently afford a delusive feeling.

Mr. Hunt wished to know on what principle Mr. Babington applied the ligature to the vein after it came out of the tumour. This operation appeared to him calculated rather to increase than remedy the evil.

Mr. Babington replied, that he had performed the operation on the same principle which led Sir Everard Home to divide the saphena vein of the thigh in varix of the leg, but he admitted that the good effects of the Baronet's operation might result from the weight of the column of blood being thus taken off, and that perhaps the present instance was not strictly analogous; but, however, as the operation was one of a trivial kind, he had deemed it advisable to give it a fair trial.

Mr. Mayo thought that the operation of tying the carotid artery was quite uncalled for, as the ligature of the temporal had not been advantageous. He thought that the excision of the tumour would have succeeded, and that this was one of those cases which had been frequent of late, where a dangerous operation had been performed *gratuitously.*

Mr. Hunt could not allow these observa- of Mr. Mayo to pass without comment. He pointed out the propriety of the ligature of the carotid in this patient, where so many of its branches, as well as the temporal, were affected, showed the impossibility of curing the disease by excision, without cutting away the brain also, and characterised the term "*gratuitous,*" as one of a very harsh kind to apply to a brother surgeon.

Mr. Mayo explained, that he did not apply the term "gratuitous" to the present operation, but rather perspectively.

Mr. Babington stated the reasons for tying the carotid artery, supposing the disease to be connected with the arterial system, were well founded, in so far as the ligature of the temporal artery alone could not have cut off the supply of blood.

Dr. Johnson observed, that no remarks had as yet been made in regard to the future line of treatment to be pursued, which was one of the points the author of the paper had directed their attention to. For his part, if he had the misfortune to have such a tumour on his head, he should have an incision made round it, so as to circumvallate the disease, and thus at once cut off the connexion with arteries and veins. The subject of the loss of the eye was, he thought, to be referred to the operation.

A foreigner, Dr. Negri, here handed an account of some experiments of the celebrated Magendie on the ligature of the carotid, to Dr. Somerville, who read it to the Society, in which that physiologist had produced ulceration of the cornea, by tying these arteries in rabbits, by cutting off the supply of blood to the 5th pair of nerves, and thus depriving them of their nervous energy.

Dr. Johnson said, that he could not conceive that the loss of nervous energy in the 5th pair was the cause of the destruction of the eye, since that effect had never been produced in any of the other numerous instances where the carotid artery had been tied.

Mr. Mayo asked Dr. Johnson how, if an incision were made round the disease, the circumvallated part would be nourished; he thought it would be likely to slough; to which Dr. Johnson replied, "from its connexion with the pericranium."

A rambling discussion now ensued as to the proper plan of treatment, in which one gentleman thought it would be advisable to produce inflammation in the diseased structure, by puncturing it with a needle; while another recommended the application of pressure, and a third supported Dr. Johnson's proposal of circumvallating the tumour by means of an incision; but nothing of importance was elicited, and after the announcement that a paper on the diseases of the testicle would be read at the next meeting by Mr. Lambert, the Society adjourned.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

SINGULAR CASE OF PSOAS ABSCESS, COMMUNICATING WITH THE GUT, AND CONSEQUENT FÆCULENT EFFUSION.—POST-MORTEM EXAMINATION.

The following extraordinary case, the only one of the kind we recollect ever to have heard of, occurred in the private practice of Mr. Whitmore, of Cold Bath-square, who, with his usual liberality, sent the unique preparation procured from it to the Museum of this Hospital, with an accurate history of the patient, from which we extract the subsequent account.

Mrs. S., æt. 41, on the 11th of May, having for some time previously been subject to *rheumatic* pains in the back and loins, although she enjoyed tolerable health, was attacked with severe pain in the epigastric and hypochondriac regions, for which there was no apparent cause, and with nausea, hiccup, and frequent eructations. Her pulse was quick, her countenance anxious, bowels open. These symptoms were readily relieved by the employment of purgatives, but they recurred frequently and suddenly afterwards, and were always alleviated by the same treatment, and on some occasions by the employment of a few leeches.

On the 9th of August, her general health being gradually declining, she was attacked with the above symptoms in a more aggravated degree; she became excessively weak, and her pulse was intermittent, and scarcely perceptible; her bowels were regular, and nothing particular was observed in the fæcal evacuations. It now became necessary to support her strength, and wine and brandy were accordingly prescribed. No alteration occurred in her condition, except that she daily became more weak and emaciated, till the 21st of September, when a considerable swelling, occupying the posterior surface of the last lumbar vertebræ, was observed. This afforded a feeling of fluctuation, not however very distinct, nor that which would result from even a small quantity of unmixed purulent matter. This tumour gradually increased in size, and seemed to be of a very diffuse nature, it being impossible to ascertain its limits; it now afforded a greater degree of fluctuation. At this time Mr. Wardrop visited the patient, and, with Mr. Whitmore's concurrence, made an opening into the swelling with a trocar; three ounces of a thin, excesssively fetid, fluid escaped, and the opening was immediately closed; the patient, however, obtained no relief; a large quantity of fluid, of a most offensive odour, continued to drain away; she sunk gradually, and on the 12th of October died, without the manifestation of any new symptom.

Sectio Cadaveris.

On laying open the abdomen, which was much swollen, a large quantity of air escaped, which had been confined in its cavity, and the intestines were found highly tympanitic; but not a vestige of inflammation of the peritoneum lining the parietes, or that covering the intestines, could be discovered. On tracing upwards the colon from the rectum, the descending portion of its great transverse arch was found to be adhering more strongly and extensively to the peritoneum covering the psoas muscle, which was singularly prominent, than it naturally ought. On opening, however, this prominence, a small quantity of very fetid fluid escaped, and there was exposed a large grey mass, composed of some foreign substance. On turning this out, it was discovered to be a large collection of inspissated feculent matter, and on tracing it in every direction, it was seen to extend behind the peritoneum from the border of the last rib to below Poupart's ligament, and from the anterior spinous process of the ilium to the vertebræ. It was in some places three inches thick, and was contained in an enormous cavity, formed by the separation of the peritoneum from the psoas iliacus internus, and quadratus lumborum muscles. At the crest of the ilium, this mass communicated by a free destruction of the soft parts with the opening made by the trocar. The appearances were altogether so unusual, that Mr. Whitmore was at a loss to conjecture the real nature of the disease, but at last, on opening the gut, three large ulcers, one of which was nearly the size of a half crown, were discovered in the posterior part of the colon, forming a very free communication with the enormous fæcal evacuation.

On prosecuting the dissection still further, the transverse process of the second lumbar vertebra was found to be carious, and that of the first was exposed but not denuded of periosteum. The right lumbar region was now examined, and here, between the origin of the psoas and the peritoneum, there was a collection of a considerable quantity of pus; the posterior surface of the peritoneum was covered with threads of lymph, but no part of any of the vertebræ was either carious or even exposed, nor was there any opening in the peritoneum.

This case, whose progress was marked by few very distinct symptoms, was probably originally one of psoas abscess, which had pointed internally, and which, from the efforts of nature to relieve herself of the disease, had communicated with the gut. Here, however, from some cause which is enveloped in obscurity, fæces passed from the colon into the abscess, instead of pus into the gut. This extravasation gradually accumulating, produced the enormous fæcal abscess which appeared on dissection, and which, from the great inspissation of the fæces, must have been of considerable standing. The case is, besides, calculated to illustrate an obscure, though important, point in surgery, viz., the progress of psoas abscess, whether the disease of the vertebræ is a primary or secondary result. The dissection exhibited on one side, abscess with healthy vertebræ, and on the other, abscess with a carious, and higher up, a denuded vertebra; from which appearances there follows the necessary deduction, that in this case, at least, the disease of the vertebral column arose from the action of the matter, and was therefore merely a secondary effect.

CASE OF HYPERTROPHY AND DILATATION OF THE LEFT SIDE OF THE HEART, WITH OSSIFICATION OF THE MITRAL VALVE.

J. S., a performer on the violin at Saddler's Wells theatre, on the 15th of September, when first seen, complained of difficulty of respiration, cough, and copious viscid expectoration, of pain extending through the chest, and of headach; violent palpitation of the heart, which was found to pulsate over a great extent of surface of the anterior parietes of the chest. The pulse was full, and gave a particularly hard thrilling sensation to the finger. The beat of the radial arteries did not correspond with one another, and occasionally were not synchronous with the systole of the heart. He had a peculiarly anxious and livid expression of countenance. He was much distressed by want of sleep, during which he was disturbed by terrific dreams. He was generally able to recline in the horizontal position, but occasionally his respiration became so difficult as to oblige him to sit up.

He stated, that for several years he had been liable to severe palpitation of the heart on any sudden excitement, and to a slight degree of difficulty of respiration, particularly when ascending a height; but to these symptoms he had paid little attention. They had, however, gradually increased, and four months ago he was obliged to give up his employment. Since this time the symptoms had increased with great rapidity, till they had assumed their present dreadful magnitude. Venesection, leeches, digitalis, hyosciamus, and opium, were the means employed; but these produced very slight and only temporary relief; the difficulty of respiration increased to complete orthopnœa, the palpitations were violent, hæmoptysis came on; he continually experienced a sense of impending suffocation, and one morning, while gasping at the window for breath, he instantaneously expired.

On dissection, the left side of the heart was found to be greatly enlarged. The cavities, particularly that of the auricle, were enormously increased in size, and the muscular fibres considerably thickened, but their enlargement did not in any degree correspond in the ratio of the dilatation of the auricle or ventricle. The mitral valve had lost entirely its natural structure, and had become converted into a piece of thick solid bone; its base was also osseous, and being thus rendered immoveable, it had entirely lost the power of closing the ventriculor-auricular opening, for when a large quantity of fluid was suddenly thrown into the ventricle from the aorta, it passed without resistance into, and filled the auricle. The lungs were found gorged with black blood, but not diseased. The other valves of the heart and its neighbouring vessels were sound, and their internal membrane exhibited no unhealthy appearance.

FOREIGN DEPARTMENT.

DISCOVERY OF MAMMÆ IN THE ORNITHORYNCHUS PARADOXUS.

It is well known to have been a common opinion, that the ornithorynchus and ornithorynchus hystrix were destitute of mammæ, and that upon this opinion was founded the argument for rejecting those animals from the class of mammalia. Cuvier, one of the latest writers on this subject, expressly states that they have no mammæ, and after a careful examination of the male ornithorynchus, I was myself unable to detect any trace, either of papillæ or glands. With respect to the female, after having opened the abdomen, and removed the greater part of the viscera, I was prevented by various occupations from continuing my investigation of this subject till the close of the year 1823, when on the 25th day of December, a day of good omen, I detected on the right side of the abdominal muscles a small round mass, which at first bore the appearance of a portion of intestine accidentally pushed into this situation, but upon carefully examining the left side, I discovered a corresponding substance. The evening was too far advanced to permit me to pursue my investigation, but on the next morning, after a night rendered sleepless by anxious expectation, I returned to my work, and found that this substance was beyond all question a glandular structure. I was equally satisfied that this gland was a true mamma, an opinion which was more forcibly impressed upon my mind from its structure and situation, from its marked development in the female, and the want of it in the male, or at least its existence in so minute a degree as to have hitherto eluded the closest examination.

The following is an account of the situation, size, and structure of the gland. It is placed on the side of the abdomen, between the fleshy portion to which it adheres very loosely, the obliquus descendens abdominis, and the anterior muscles of the femur, reaching at its upper extremity the external margin of the pectoralis major, and the lower extremity of the sternum. The marked development of this part renders it as surprising that it should hitherto have escaped notice, especially as so many ornithorynchi, and among these so many females, have been dissected. The length of this gland was four inches three lines; its breadth about one inch three or four lines; its greatest thickness four lines; its external shape is very oblong, as indeed is evident from these dimensions; its breadth is nearly uniform, but is a little narrower towards the lower extremity. There are exceedingly minute excretory ducts in the middle of the gland, which open externally. Although I could pass neither silk nor mercury through the ducts, which were of themselves, as I have observed, exceedingly narrow, and further contracted by the spirits of wine, and filled with a thick fluid, the area was nevertheless indicated in the skin. Although this part was covered with hair, there appeared, nevertheless, upon removing them, an opening of about five lines in length, and three in breadth, surrounded with about eighty minute foramina, from which the hairs proceeded, and which were probably the orifices of the excretory ducts. There was, moreover, in the centre of this opening, a small depression of about two lines in diameter, destitute of hair; but having several unequal rugæ, among which one, not equaling the size of a millet seed, was more conspicuous than the rest.

This discovery confirms the opinions of Oken and De Blainville, who, although they had never examined a female ornithorynchus, nevertheless asserted that there could be no doubt of the existence of mammæ, on account of the numerous analogies presented by that animal with the other mammalia. This discovery also refutes the arguments of those who inferred a want of mammæ from the absence of nipples, from the shape of the bill, which is by no means adapted for suckling, and from ova said to have been found in the ovaries, and in nests, though there can be no foundation for this last assertion.—*Meckel de Ornithorhyncho-Paradoxo. Lips.* 1826.

SCIENTIFIC INSTITUTIONS IN RUSSIA.

The University Library of St. Petersburgh, consists of 60,000 volumes; and that of Moscow, since the burning, contains already 34,000 volumes. The rich anatomical cabinet which the deceased Emperor Alexander purchased of the privy counsellor, Professor Loder, for 10,000 rubles, belongs now to the university of Moscow. Through the exertions of Prince Ealitzen, an economical society and a school for the education of future agriculturists, have been recently established at Moscow. The branches of instruction are the following: the Russian language, arithmetic, geography, statistics, rural architecture, surveying, book-keeping, agricultural chemistry, botany, the physiology of plants, the management of woods and forests, technology, farming, and the veterinary art. The course lasts five years. The Society publishes a journal in the Russian language, which has already accomplished much good.

The Museum, in Moscow, which has been newly rebuilt, now consists of four saloons.

It is much indebted to the Imperial Society of naturalists, instituted in 1805, which maintains a traveller in Brazil, for the objects of the Society. The chemical laboratory is, perhaps, the richest of all the collections. Among others are seen 360 models of various crystals, formed in wax, presented by the apothecary Schulz. The physical cabinet reckons upwards of 300 instruments, and different apparatus, although, after the destruction of the city, hardly 100 remained. The cabinet of coins has also been reformed. In 1817, it contained about 5000 of various descriptions, and since that time it has been much increased.

The Pharmaceutical School of St. Petersburg, which has existed since 1822, has recently, thanks to the generous patronage of the minister of the Interior, been endowed with a botanical garden, which will soon rival the finest and most complete of the kind in Europe. It was planned by F. Fischer, one of the greatest botanists in Russia, who is now director, and is the same who arranged the fine garden at Varioka, in the neighbourhood of Moscow. The garden at St. Petersburg already reckons upwards of 11,000 species, and 80,000 single plants.—*Foreign Quarterly Review.*

ENGLISH AND SCOTCH PHYSICIANS IN FRANCE.

Copy of Letter No. I. *from* Dr. Robertson *to* Dr. Allatt.

Boulogne-sur-Mer, Oct. 16, 1827.

I am informed, that on a recent occasion you objected to the British physicians of this place as being Scotchmen, and only qualified with degrees from the Universities of their country, thereby insinuating that something inferior and derogatory was consequently attached to them as professional men. Could I hesitate in forming this opinion of the purport of your objections, the manner you addressed Mr. —— on Saturday last, by asserting, "You are the only regular physician in Boulogne," would put every doubt as to your motives beyond dispute. As I fall within the scope of your objections in every particular, no other apology will, I presume, be necessary for thus addressing you, to whose person I am even a stranger.

I shall on this occasion abstain from every remark on the conduct I have to complain of, in one so young in the profession as I am told you are; but as an individual, at least as well educated as you have been, and of long standing as a regular physician, you will not deny my right to call upon you to inform me why, without provocation, you have as above attempted to supersede my professional character.

I make this demand, not as an appeal to ascertain by your opinion the rank I hold in my profession, for neither your assertion, nor even an edict of your College, could deprive me of the honour as a graduate in the only University in the British dominions, where medicine, as a science and a practical art, with all its *collateral*, and *ornamental branches,* is completely taught.

Being thus qualified as a regular physician at home, *and having the high honour to be recognised*[*] *as such in France, by his Majesty's most gracious approbation,* you cannot be surprised that I deny the exclusive pretension you arrogate to yourself as a medical man at Boulogne, or that you can possibly have the right of settling the rank of any other physician. I thus frankly state my ideas on the subject; and I will be happy to find you have been led into mistake from erroneous information.

I am, &c.

Dr. Allatt. H. Robertson.

No. II.—Dr. Robertson *to* Dr. Allatt, *delivered about Eight o'Clock of the evening of its date, as* Dr. Allatt *had taken no notice of the former Letter.*

Boulogne-sur-Mer, Oct. 18, 1827.

Sir,—It was not unforeseen that the letter I addressed to you on the 16th instant, would place you in rather an awkward position as regards your conduct to me; for you must have either replied to my letter, and thereby given up the *absurd idea* of exclusive pretensions in the school to which you belong, or by your silence give me room to infer, that while you obtained exclusive right as a *regular* physician at this place, you knew that I was a graduate in a University the most celebrated for the study of medicine in the United Kingdom. *This, it would appear, has been your choice,* and I shall therefore take care to obviate a repetition of such conduct as I complain of, by the publication of this and my former letter to you, with such comments as I think proper to make. In the mean time I will flatly contradict, personally and by my friends, in the most unequivocal manner, any such arrogant assertions as those pointed out in my last letter.

I have not hitherto called upon you to show by what right or privilege you arrogate superior rank as a medical man at Boulogne, and my reason for refraining to do so is, because I do not consider your qualifications even so good as those of the other physicians here, and upon that opinion I have appealed to the authorities of this place.

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[*] In reference to Dr. Paris's College Oration.

I am, &c.

Dr. Allatt. H. Robertson.

No. III.— *From* Dr. Allatt *to* Dr. Robertson.

17th October, 1827.

Sir,—If amidst the various "ornamental studies" of your University you have bestowed any time upon that of politeness, and think proper to send me a letter as from one gentleman to another, I may probably feel disposed to reply to it.

I am, &c.

Dr. Robertson. Robert Allatt.

No. IV.—Dr. Robertson *to* Dr. Allatt.

Saturday Morning, Oct. 19th, 1827.

Sir,—In reply to your note, *received last night about* 9 *o'clock, dated, I presume by mistake, the* 17*th instant,* I have only to observe, that I should regret exceedingly were my letters to you couched in terms unbecoming a gentleman on such an occasion. True, that feeling myself aggrieved, my language is not that of a suppliant. But as you have taken two days to discover the impoliteness of my language, instead of coming promptly forward as soon as your error was pointed out; and as *neither the subject,* my time, nor my health, permit me to study a more agreeable style, I must decline the honour you hold out to me of a further correspondence; which I conclude by assuring you with much satisfaction, that *with us* politeness does not enter into an ornamental education in the way you seem to have studied it.

I am, &c.

H. Robertson.

It might have been expected from the lofty and presumptuous tone of Dr. Allatt's note, which would be even disgusting and unjustifiable coming from the highest official rank, that he should have been satisfied with the temperate manner Dr. Robertson declined his correspondence; and he might congratulate himself that he was not addressed in terms not only applicable to his note, but to his conduct throughout this business: for he has afforded astounding specimens of the delicacy of his moral feelings, as well as of his great modesty and exalted notions of politeness. However, we find that on Saturday night the 20th instant, Dr. Allatt sent another letter to Dr. Robertson, which circumstance was noticed thus:—

No. V.—*From* Dr. Robertson *to* Dr. Allatt.

Saturday night, Oct. 20th, 1827.

Sir,—I am sorry, that instead of opening your letter left at my house this night, I can only refer you to my letter of yesterday's date, for my reasons for declining further correspondence. That letter was in reply to a note from you, which, in my opinion, presents an insuperable bar to its continuance.

The letter addressed to me lays at your service when you choose to send for it.

I am, &c.

Dr. Allatt. H. Robertson.

ABUSES IN THE WESTMINSTER HOSPITAL.

To the Editor of The Lancet.

Sir,—The interest you have at all times taken in whatever concerns the medical student, induces me to lay before you the shameful manner in which the unfortunate young men, who have entered to the surgical practice of the Westminster Hospital, are treated by the medical officers of that establishment, with the exception of Mr. Guthrie. I need hardly point out to you, Sir, of what consequence it is, both to students and patients, that the surgeons should be punctual in the time of visiting the wards, and yet I assure you, Sir, we are kept waiting in the hall from twelve until two o'clock, very often without seeing one of them, (excepting Mr. Guthrie,) unless as they pass us in their way to the board-room, where they remain, compelling us, if we are resolved to see them again, to lose, by so doing, our lecture on anatomy, which, at this end of the town, is delivered either at two or half-past. Whenever there is a general board meeting, (and at this hospital there are many,) we have no chance of at all beholding them before half-past two. This was the case last Saturday, when most of the students came away in disgust, without having seen a single patient, loudly exclaiming against such infamous conduct on the part of those who promise to instruct them, and for which they paid liberally, one and all declaring they had no remedy, unless in an application to The Lancet. If the surgeons will attend the meetings of the board, let them do so at the expense of their own time, but first of all do their duty by visiting their patients, and permit the student to attend to his other avocations; they may then display their oratory in the board-room as much as they please; but this would not answer their purpose: they can spare only a given time to the hospital, and that having elapsed in arranging what might well be done without them, they either hurry over their patients (most of the students, however, having left for their anatomical lecture) or appoint the house-surgeon to see the patients for them. If you attend the hospital on any Wednesday or Saturday, you will find the case as I have stated, especially if there is a general board meeting. Should there not chance to be one, you will most probably find they have not come at all; or if by accident they have, they are all at the *same* moment of time making the round of the hospital. Is it not most infamous that such a system as this should exist, whereby we are deprived both of our money, and, what is of more consequence, our time? I write warmly, and perhaps too much so; but had you, Sir, week after week, walked a mile and a half to the hospital, and after waiting two or more hours, not seen a single patient, and then on your hastening to your anatomical lecture found it nearly over, you would think there was sufficient cause for being vehement on the occasion, and regret with me, there was to be found in our profession men so grossly negligent of our interest, and their bounden duty, and some of these very men Examiners of the London College of Surgeons, who nevertheless expect us, with such instruction, to possess "sound chirurgical knowledge."

Such conduct as this sufficiently explains the necessity that existed for making their by-law, by which we are prevented attending the Continental schools, which law has enabled them to *oblige* us to attend *their* hospitals, and allowed them, at the same time, either to attend themselves or not. Luckily for us, we have still the hope of a remedy, by exposing their conduct in the pages of your Journal. Trusting that you will advocate our cause, as well as that of the Borough Students, and apply THE LANCET until you compel them, from shame, to perform their contract with us,

I have the honour to be, Sir,
Your very respectful well-wisher,
A PUPIL.

October 29.

ON THE TREATMENT OF ERYSIPELAS,

BY S. COOPER, ESQ.

To the Editor of THE LANCET.

SIR,—It is hardly necessary for me to remind you, that your reports of the proceedings at Medical Societies, will not deserve the notice of the profession unless made with strict fidelity and impartiality. In your last account of the meeting of the Medico-Chirurgical Society, you have given a very erroneous statement of the remarks which I ventured to make on the subject of erysipelas. In the first place, I never asked my friend, Mr. Lawrence, "whether he meant to inculcate the necessity of making incisions in cases of erysipelas, where neither suppuration nor sloughing had occurred?" As I knew that this was his doctrine, the question would have been superfluous. Secondly, I never alleged, that I "could not see the necessity of making incisions at all." Thirdly, I never made use of the absurd and contradictory observation, that I "would never attempt such a practice, *till I had had more experience of its benefit*." Instead of these remarks, my first observation was, that, in hearing Mr. Lawrence's cases read, I had taken particular notice that in some of them his incisions were of moderate extent, and had not been made before suppuration, or a sloughy state of the cellular membrane had occurred. To this method, under the circumstances specified, I said, that no objection presented itself; in fact, the practice was long ago recommended in my surgical writings. The great point on which I presume to differ from Mr. Hutchison and Mr. Lawrence, is that concerning the alleged utility of making *numerous*, or *very extensive incisions* into parts affected with phlegmonous erysipelas, with the view of *preventing* suppuration and sloughing. I contended, that these evils are not so frequently the consequences of phlegmonous erysipelas, when properly treated by milder means, as to form a justification of the practice of making for their prevention incisions, sometimes amounting to a foot or two in length. And, in proof that such practice was not infallible, I adverted to three cases, which had proved most unfortunate. In one, a case candidly reported by Mr. Lawrence himself, the patient died of hæmorrhage, soon after an extensive incision had been made. In another instance, the patient never revived from the shock communicated to the system by the infliction of an enormous wound on the erysipelatous parts. In a third case, in which the knife had been freely used in an early stage of the case, in the manner suggested by Mr. Hutchison, the patient recovered with great difficulty, and not without sloughing of the greater part of the integuments of the arm. I also mentioned, that seven cases of erysipelas had been attended by myself, in the course of the last eight months, and though some of them were of a very severe form, corresponding, in every respect, to phlegmonous erysipelas, they all had a favourable termination; and that, in only one or two of these examples had it been necessary to make a small opening or two, for the discharge of matter. One of these last cases I attended with my friend Mr. Lawrence in private practice.

In severe cases of idiopathic erysipelas, I always begin the treatment with bleeding, and the exhibition of twenty grains of ipecacuanha, and follow up these means by saline aperients and antimonials. When the acute stage of the disease is over, and the patient is aged, or much debilitated, I recommend bark, the sulphate of quinine, wine, and a nourishing diet. When the case arises from local injury, or irritation, I frequently apply leeches, and sometimes find cold applications better than warm ones.

These observations will show, that my disagreement with the advocates for incisions, in the treatment of phlegmonous erysipelas, is founded upon facts; that my disapprobation of moderate punctures or incisions, does not extend to cases where matter or sloughs require discharge; and that I concur with my friend Mr. Lawrence in the frequent efficacy of bleeding in the early stage of the disease.

I remain,
Sir,
Your obedient Servant,
Samuel Cooper.

71, Great Russell-street,
Bloomsbury-square.

ST. THOMAS'S HOSPITAL.

INTERESTING CASE OF AMAUROSIS, DEPENDENT UPON A CEREBRAL TUMOUR.

Elizabeth Jones, 31 years of age, of dark complexion and florid countenance, was admitted into the hospital on the 6th of September, under the care of Mr. Travers, on account of an imperfect state of vision. She stated that her employment was that of a cook in a large family, and where she had consequently been exposed to the glaring light of strong fires: her sight had been tolerably good until within the last six months previous to admission, when it began to fail,—she could not discern objects at a distance, as they appeared to be clouded and confused. Her general health, she said, was tolerably good, but she had experienced dull aching pain at the back of the head, and the catamenial discharge had always been irregular, being sometimes very sparing in quantity, and at other times occurring at longer intervals than natural.

When admitted, the power of vision in the left eye was but slightly impaired; the sight of the right eye was nearly extinct—the pupil of the former was dilated and obedient to the stimulus of light, the right pupil, however, moved very faintly, and was widely dilated. With the exception of a slight irregularity at the under and outer edge of the right pupil, there was nothing unnatural to be detected in the appearance of the eyes—the cornea was perfectly transparent, and looking through the pupillary opening, there was no perceptible opacity in the posterior chamber of either eye. Indeed it was matter of remark that the girl had "a pair of beautiful black eyes." The pulse was regular, and bowels moderately lax; and it is also worthy of observation, that the patient had been for some time under the care of Mr. Ware, who directed cupping, blisters, and the exhibition of mercury, until tenderness of the gums was produced.

Mr. Travers prescribed *five grains of blue pill, with five grains of aloetic pill*, night and morning: these were continued for ten days, when the mouth not being at all affected, the pills were ordered to be taken three times a day. The pain in the head at this time had increased, and the state of vision was much the same; a blister, therefore, was directed to be applied to the temple and kept open, and ten ounces of blood to be abstracted from behind the right ear by means of cupping.

On the 19th of September ptyalism was complete, and the pills in consequence were discontinued. From this period to the 3d of October there occurred but little important to remark; the vision of the left eye gradually diminished, and the pain of the head was unrelieved. A blister was applied over the forehead, and a seton inserted in the nape of the neck.

On the 3d there was some improvement in the patient's health, she had recovered from the ptyalism and was able to take her food.—Mr. Travers, at this visit, prescribed the following draught, to be taken three times a day:—

> *Carbonate of ammonia, four grains*;
> *Tincture of hop, half a drachm*;
> *Infusion of cascarilla, twelve drachms*;

and a blister to be applied to the nape of the neck and to the forehead.

Mr. T. also, on this occasion, remarked that he considered the defective state of vision attributable to some *cerebral disease*. From the date of the last report to the 20th, a period of seventeen days, we found on visiting the patient at intervals, that the vision of the left eye became gradually extinguished; the pain in the head constituting a prominent and distressing symptom throughout the whole of the time. On the 22d, there was violent pain in the head—the bowels being constipated, five grains of calomel were given, and an aperient saline draught ordered to be taken three times a day. On the 24th, the pain was excessively severe and delirium was occasionally present; the draught was continued, with the addition of half a drachm of tincture of henbane, and ten leeches were applied to the temples. The poor girl sunk on the following day, it appears somewhat unexpectedly, for we do not learn that any remarkable change took place, except for a very short period previous to her decease, when she became insensible.

Post Mortem Examination.

This was made by Mr. Ward, the dresser, on the following day. The head only was examined, in consequence of objections entertained by the friends of the patient. and the following appearances were observed.—The brain externally, and the membranes were healthy, but on making an horizontal section of the substance of the brain, in order to show that peculiar arrangement of medullary matter to which the term *centrum ovale* is applied, a bulging or distention of the roof of each lateral ventricle was very apparent. And when the ventricles were opened a large quantity of serous fluid escaped: they contained about an equal quantity of fluid, and nothing further was remarked in the left ventricle; but in tracing the descending cornua of the right ventricle, an hydatid of the size of a marble was found lying upon the plexus choroides, but not attached thereto. The third, as also the fourth ventricle, contained serous fluid—we suppose that the whole of the serum, contained in all the ventricles, amounted to upwards of two ounces.—The examination was continued by raising the brain at its base, and cutting through the origins of the nerves, but in pursuing this it was found that the under surface of the brain was so firmly adherent to the back part of the petrous portion of the temporal bone, that it was with difficulty separated. This attachment was owing to a tumour proceeding from the brain, of the size of a pullet's egg, superiorly it was attached to the left crus cerebelli, and by pressing upon the pons varolii and medulla oblongata, had completely flattened them on one side; and so intimate were its connexions below, that portions of the tumour (which consisted of medullary matter) could be traced in the canals of the bone.—The auditory nerve, so far as its origin could be traced appeared to be involved in the disease; the *left* optic thalamus was pressed upon by the tumour, but nothing unnatural was observed in its structure, nor were there any diseased appearances in the tracti optici, and optic nerves. It was remarked, however, that these nerves were comparatively small. The mass which constituted the tumour had the appearance of brain, but was firmer than the natural cerebral structure.

CASE OF CANCER OF THE PENIS, COMMENCING WITH PARAPHIMOSIS.

A few Numbers back, we briefly alluded to the fact of Mr. Travers having amputated the penis, in consequence of cancerous disease. The particulars of the case are as follow:—

P. C., 56 years of age, a labouring man, of sallow complexion and intemperate habits, was admitted into Henry's Ward, on the 27th of September, under the care of Mr. Travers. The account which he gave was, that three months previously, he perceived a small dark coloured spot on the side of the glans, near to its junction with the prepuce; it was of a dirty brown colour, superficial, and occasioned but little pain. However, as the sore continued for some time, he applied to one of those empirics, who (thanks to a dronish College) so abundantly exist, and this fellow mistaking the disease for a venereal affection, exhibited mercury to ptyalism—the mouth was sore for about a week. Afterwards, as he continued his ordinary employment, and usual intemperate habits, the prepuce became red, swollen, and very painful; it was drawn back, and he was unable to bring it forward, having, in fact, paraphimosis. This occurred about a month before admission, and the disease so rapidly extended, that the whole of the under part of the glans and prepuce became involved; the pain now became very severe, being invariably worse at night, of a lancinating kind, and occurring in paroxysms.

When admitted, the natural appearance of the glans penis was destroyed; it was covered with hard irregular granulations, which, from neglect on the part of the patient, had become very irritable; the skin of the penis, for some way back, was very hard and tense; there was no glandular enlargement.*

Mr. Travers saw the patient two days after admission, and, at this time, expressed his opinion that the disease was of a cancerous nature; with respect to the paraphimosis, Mr. Travers observed, that cancer of the penis begins either with phimosis or paraphimosis. As he was unwilling to propose immediately, the loss of so valuable a member, and was desirous of obtaining the opinion of his colleagues, Mr. Travers prescribed the application of hemlock poultices to the part, five grains of the extract of colocynth at bed time, and five minims of the solution of arsenic in ten drachms of the decoction of bark, to be taken three times a-day. With this treatment, which was continued about a week, the sore became cleaner, and was less irritable; Mr. Green, who saw the patient in the meantime, coincided with Mr. Travers as to the nature of the disease, and the propriety of an operation. The poor man having assented, the operation was performed as we before stated. Mr. Travers made two circular incisions, the first through the skin only, and allowing this to retract, he made his second circular incision, at the part to which the skin had drawn back, and by one sweep amputated the penis. Five arteries were secured. The subsequent treatment consisted in the daily introduction of a bougie into the urethra, and ultimately a silver tube was worn; the parts granulated, and healed kindly.

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* It is a singular fact, that the poor man had applied for admission on the two preceding Thursdays, and was seen successively by Mr. Green and Mr. Tyrrell in the "taking-in room," but the case *was passed over, as not of sufficient importance to require admission into the Hospital!*

MEDICAL CLINICAL INSTRUCTION AT ST. THOMAS'S HOSPITAL

DR. ELLIOTSON'S CLINICAL LECTURE ON PERICARDITIS, AND THE USE OF COLCHICUM IN THIS DISEASE.

The observations made on the medical clinical instruction of this Hospital in the last Number of this Journal, have, we rejoice to say, had their effect in the proper quarter; and we have reason to believe that some measures will speedily be adopted to prevent the pupils from being any longer *cajoled* into the payment of eleven or twelve guineas for *one-third only* of the medical practice of the Hospital.

Dr. Elliotson thought it necessary on Saturday last to offer some remarks on what appeared in The Lancet, lest he should be supposed to have censured his colleagues. Dr. Elliotson may take care of his own reputation, but we advise him not to be so tender for that of his colleagues. We dare say that he did not intend to censure them, and we only stated that which he said, namely, that he alone was giving clinical lectures; the bare statement of this fact is sufficient censure.

Gentlemen,—Previous to my offering some clinical remarks on pericarditis, which I intend to make the subject of my lecture to day, I must tell you, that I am much distressed at some observations which I have met with in this morning's Lancet, under the head of "Medical Clinical Instruction at St. Thomas's Hospital," however, I should not have noticed them here, but for an allusion to my colleagues by myself, reported in the body of the lecture, and which is likely to be misunderstood, from the concise manner in which it is given. I allude to that passage where I am made to say, that I gave clinical lectures on the first season, declined on the second because my colleagues would not join me, and now lectured alone only at their particular request. This is certainly the substance of what I stated, but I offered it as an apology for appearing to put myself very forward in giving clinical lectures alone, and not as a censure upon my colleagues, in which light it must appear without this explanation. I am, and hope always to be, on the best terms with my collegues. There is a trifling inaccuracy, I perceive, in the lecture as reported, which I am anxious to correct. In regretting that five years were spent in apprenticeships, and two years only of study in London, and wishing the times were reversed; I did not say the five years should be spent in London exclusively, but *at any schools* where professional and collateral knowledge could be obtained; for I am not one of those who think knowledge depends on *latitude* or *season of the year*.

Now to speak of pericarditis, and I will first read the particulars of a case recently in the Hospital, and which many of you saw:—

J. F., a seaman, 26 years of age, was admitted into William's Ward on the 11th of October. He had been ill upwards of a month, and complained of pain at the epigastrium, and about the region of the heart, darting to the left shoulder, and produced by the slightest exertion. The breathing was so difficult, that he was obliged constantly to be in the erect position; if he attempted to lie down, he experienced a most distressing sense of suffocation, with violent palpitation of the heart. He obtained but little sleep, being often disturbed by frightful dreams, waking suddenly with these, and a feeling of suffocation; the action of the heart was strong, and the pulse full. He stated that he had been similarly affected five years ago, and was ill for many months; it began then with rheumatism. The treatment adopted in this case was the application of a large blister to the chest, and the exhibition of *half a drachm of wine of colchicum*, to be taken three times a day. On the third night after these measures had been pursued, the man could lie down on his back, and from this time he gradually recovered. He soon lost all dyspnœa, palpitation, and pain, and he was dismissed without any symptom of ill health the day before yesterday, at his own request.

There was no doubt in my mind that this was a case of chronic pericarditis, and it was treated as such. The pericardium, you are all aware, is a serous membrane, and therefore, the effects of inflammation in this part, are those peculiar to this structure. And here I may remark, that the mode of considering inflammation,' in reference to its structure, originated with Dr. Carmichael Smyth, and it was not until about ten years afterwards that Pinel adopted this plan. With respect to the symptoms of carditis and pericarditis, it was thought by Cullen difficult to distinguish them from each other, and therefore he defines them both together, as pain in the region of the heart, anxiety, dyspnœa, palpitation, syncope. However, I believe that carditis, or inflammation of the heart itself, is a rare disease, though partial inflammation preceding an ulceration or abscess is sometimes met with. In most cases which are called carditis or pericarditis, we find, on examination after death, that the pericardium, like other inflamed serous membranes, is red, and the redness is in patches, in which are dots—a fluid, limpid, yellowish and muddy, or bloody, is contained within the pericardium. A layer of fibrin is spread out upon some part of the membrane, sometimes regularly smooth, but more frequently full of little projections, so as to resemble the interior of a calf's stomach; or, as Laennec has described it, it is as if butter were spread on two pieces of marble, which were then laid together, and afterwards pulled asunder. If pericarditis become chronic, then the fibrin constitutes a membrane, uniting the heart and pericardium, and more or less obliterating the cavity. Laennec remarks, that the symptoms of this disease are often very uncertain, that sometimes they are distinct and fatal, that at other times the disease exists, proves fatal, and is not recognisable till after death. Again, sometimes all the symptoms are present, and no such thing is found after death; and therefore, Laennec says, that he considers the diagnosis a mere guess in every case. *Auscultation* is of no assistance, except, perhaps, in informing you what the disease is not. I confess, however, that when we see pain in the region of the heart, and this increased by putting the ends of the fingers up against the diaphragm, under the cartilages of the left ribs in front, the pain running to the left shoulder, and even down the arm, an incapability of lying down, palpitation, a sense of suffocation waking the patient, the pulse full and quick, with a peculiar anxiety of countenance, it is impossible not to believe the disease to be pericarditis. And, with respect to Laennec's observations, I may remark, that inflammation in any part may prove fatal, without any of the symptoms having been present; and in others it clearly exists, and is destructive to life, yet nothing is found after death—this is seen even in apoplexy.

Pericarditis is frequently connected with rheumatism—the connexion of disease of the heart with rheumatism was first noticed by Dr. Pitian, of St Bartholomew's, in 1788, and mentioned by Baillie, in his Morbid Anatomy in 1797: yet, Sir David Dundas describes it in the Medico-Chirurgical Transactions, twelve years afterwards, without any allusion to them. The disease often occurs with acute rheumatism, and often succeeds it: the soft state of the heart occasions it sometimes to dilate, so that it acquires an immense size. With the case under consideration, you will observe that the patient first had the symptom in his heart, in conjunction with rheumatism, and he has frequently suffered from rheumatic affections.

The success of the treatment in this case, in my opinion, further shows, that it was an affection of the heart, for it was cured by *colchicum*, which has great power over pericarditis, and especially if combined with rheumatism; it does more also than any other internal medicine in organic disease of the heart. I was first led to employ it in rheumatic pericarditis, from knowing its extraordinary efficacy in acute rheumatism, and I gradually employed it in other affections of this organ. Colchicum is a medicine of great activity, and therefore requires much caution in its exhibition: it seldom does much good till it purges, when it must be suspended, lest the purging should continue and increase; for it is an acrid purge, extremely irritating to the mucous membrane, and if continued after diarrhœa is fairly excited, may cause horrid gripings, bloody stools, inflammation and ulceration of the intestines, and death. However, this is rarely to be feared, if the medicine is begun in a moderate dose, and cautiously increased, when this is found insufficient, and suspended as soon as purging begins. When there is griping, violent purging, and tenderness of the abdomen, cupping, leeches, or a blister may be applied, with the use of opium, and sometimes mild astringents. I usually begin in adults with a scruple or half a drachm of the wine of colchicum, three times a day.

In conclusion, I may remark, that the case we have considered, though recent, was of the nature of the chronic form, the man having had the disease before, and not being so violent as to require blood-letting or cupping: yet it was likely to last several months, and I have no doubt would, but for the colchicum.

THE LANCET.

London, Saturday, November 3, 1827.

We are glad to observe the decided tone taken by *The Times*, on the question of medical reform. That Journal does not hesitate to declare, that the legislature would be more usefully occupied in cleansing the Augæan stable of medical abuses, than in promoting schemes of emigration, or in encouraging crusades for the spiritual reformation of our starving population at home. We agree with our enlightened contemporary, that the subject of medical education is one of paramount importance, and that there can be no security for the public health, except in the establishment of such tests of qualification, as may ensure the competency of medical practitioners. We regret, however, that *The Times* should have been led, inadvertently, to give the sanction of its approbation to the regulations recently put forth by the Apothecaries' Company, because such approbation is calculated to defeat the cause of medical reform, by countenancing a system under which all the existing abuses have been fostered, and by a continuance of which those abuses would be perpetuated. We shall not, at present, stop to inquire into the motives which have dictated the regulations, but merely consider the effects. These effects are, first, to compel the attendance of candidates on particular teachers, and to render all candidates, who have derived their instruction from other teachers, ineligible; and, secondly, to extend the period of attendance on such teachers, from twelve to fifteen months.

We need not remind our contemporary of the mischievous consequences of giving a monopoly to particular medical teachers, for he has himself adverted, iu very forcible language, to some of the evils resulting from such a monopoly, in commenting on the meeting of the students at Guy's. There is no proposition in Euclid more demonstrable than that—in proportion as you make it less a man's interest to discharge his duty efficiently, by so much will his duty be less efficiently discharged. Remove that stimulus to exertion, which is occasioned by the competition of teachers, and the privileged instructors will infallibly become negligent and inattentive. Nor is this system, of giving a monopoly to particular teachers, less absurd in principle than mischievous in its practical results; for, the only fact in which the public is interested, is, whether a candidate possess the requisite knowledge to enable him to embark in the practice of his profession, and, if he possess that knowledge, what matters it *where, under whose instruction, or in what space of time,* he has acquired it? We are told by a Chinese chronicler, that in the reign of the Emperor Pe Quong, brother to the moon, and mighty possessor of the brass-handled sword, a law was passed, making it capital for any man to practise physic in the celestial empire, unless he could produce a certificate of his having sat crossed legged for forty days, on the tomb of the illustrious physician, Fo. In the spirit of this law, have the Old Ladies of Apothecaries' Hall promulgated their regulations for the admission of candidates to the medical profession. Let a student present himself for examination, who has derived his knowledge from Dupuytren at Paris, or Graëfe at Berlin, and he will be at once rejected; but let a candidate show that he has served for five years behind the counter of the meanest apothecary and farrier that ever drugged man or horse, in the obscurest hamlet of the kingdom, and let him produce certificates of his having attended the lectures of certain privileged teachers for a few months, after the expiration of these five years of druggery, and he will be let loose to practise on the health and lives of the king's subjects.

But supposing (which is the erroneous supposition of the *Times*) that these regulations were really calculated to increase the professional information of medical students, who are to be the judges of the increased competency of candidates? Whence are the public to derive their security? By whom are they to be inspired with fresh competence in the ability of their medical advisers? Why, by eight or nine of the most incompetent and effete of the incorporated tradesmen at Apothecaries' Hall; by eight or nine twaddling administrators of clysters and caudle, who have received, upon their own showing, a worse education than that which it is the professed object of these regulations to introduce. *Quis custodiet ipsos custodes*? Who shall examine the examiners themselves? Who shall ascertain the qualifications of these self-constituted guardians of the public health? Much stress has been laid upon candidates possessing a competent knowledge of the Latin language, and we agree with the *Times*, that it is not too much to expect from those who undertake the superintendence of the public health, that they should have received the ordinary education of gentlemen. But is there one, we will ask, among the incorporated retailers of rhubarb at Apothecaries' Hall, who is capable of judging critically of a student's acquisitions in the Latin language? If there be one such, let him be named, "for him have we offended." Again, is there one among these incorporated tradesmen capable of judging critically of a student's acquisitions in anatomy, in surgery, in medicine, in physiology, in chemistry, or even in that science whereof they make a trade, pharmacy? If there be one such, we shall be content to consign the education of the whole medical youth of England to the hands of a corporation, which is regarded with equal contempt, both by the profession and by the public. We are the more anxious to call attention to the necessity of establishing adequate tests of qualification, by an efficient, searching, *bonâ fide* examination of candidates for the medical profession, because such an examination pre-supposes the removal of many of the abuses by which the profession is at present depressed and degraded. It would, indeed, be most unjust to medical students, to subject them to a rigorous examination, without removing the obstacles which, at present, render it almost impossible for them to acquire professional knowledge. Much of the filth must be cleared away from the "Augæan stable" of corruption, before this most salutary and essential object can be accomplished. A mere *vivâ voce* examination would, we repeat, be insufficient; candidates should not only be called upon to demonstrate the various parts of the human body on the dead subject, but they should be required to furnish written answers to printed questions on every branch of medical knowledge. Suppose, to give an easy example, a candidate were required to describe the symptoms of ascites, to state the medical means of curing or palliating that disease, and to explain the operation of paracentesis. By giving an answer upon paper to this question, he would either exhibit his knowledge, or he would commit, like Dogberry, his own ignorance to writing. An examination conducted upon these principles, would really furnish a test of the competency of candidates; but then we would no more tolerate the Old Ladies of Apothecaries' Hall as examiners, than we would accept Dr. Hewett as a referee, if the question proposed were to distinguish between the indications of actual parturition, and the symptoms of acute peritonitis.

Shortly after the above article was written, the letter of "A Pupil," inserted at page 179, reached us. It contains a pregnant illustration of the correctness of our arguments, relative to the pernicious consequences arising from the present infamous system of monopoly, enjoyed by the surgeons of the London Hospitals. Sir A. Carlisle, and Mr. Lynn, *two* of the surgeons of the *Westminster Hospital*, are also two of those precious lawgivers of our College, who enacted a regulation which compels a student to produce a certificate of attendance at a *London Hospital*; and yet, when they have thus unjustly dragged him here, and received his money, seem to think that taking any further notice of him, would be beneath their dignity. But their infamous reign fast approaches its end.

A LETTER will be found at page 180, from Mr. S. COOPER, the able author of the *Surgical Dictionary*, relative to some alleged inaccuracies in our notice of that gentleman's speech, delivered at the last meeting of the MEDICO-CHIRURGICAL SOCIETY. On comparing the letter with the report, we look in vain for the "contradictions" and "absurdities" complained of by Mr. COOPER. The chief cause of offence, probably, may be found in the *brevity* of the report. However, we are obliged to Mr. COOPER for having furnished the profession with a more extended view of his valuable opinions on the treatment of *erysipelas*.

MR. ASTON KEY has sent us the following statement relative to the subscription for Sir Astley Cooper's Portrait:—

"Mr. HENRY COOPER, who was appointed *Treasurer* for receiving subscriptions in the year 1817, paid to Sir Thomas Lawrence half the price of the portrait, (the receipt for which sum is in the hands of Mr. Key,) with the understanding that the other half was to be paid as soon as the painting was completed. Up to the present period, the painting has remained in an unfinished state. The subscriptions in 1817 not being equal to the sum required (in consequence of a wish expressed to the Committee by Sir Astley Cooper, that the subscription should be closed,) Sir Astley Cooper within the last six months has supplied the deficiency; and Sir Thomas Lawrence some time since received the whole price of the portrait, contrary to the agreement above mentioned. An artist has been spoken to respecting an engraving, which will be commenced as soon as the painting is finished."

The subscribers have now a right to expect an immediate explanation of the cause of the delay from Sir THOMAS LAWRENCE, whose conduct in this transaction does not seem to admit of a very favourable construction.

THE sum subscribed for Mr. COOKE amounts to 219*l.* 12*s.*; and, at the desire of that gentleman, the book will be finally closed on Thursday next, Nov. 8.

SUBSCRIPTION

TO PAY THE FINE AND LAW EXPENSES OF MR. W. COOKE, OF EXETER.

	£	s.	d.
Amount already advertised	219	2	0
The Publisher of THE LANCET	0	10	0

A Treatise on those Diseases which are either directly or indirectly connected with Indigestion: comprising a Commentary on the Principal Ailments of Children. By DAVID UWINS, M.D., &c. 1827. 8vo. pp. 274. Underwoods.

THE habits of the times, according to Dr. Uwins, seem to sanction three distinct species of medical writing. The erudite and technical, and exclusively calling upon professional readers; a second, the contrast to this, avowing its design to "make every man his own physician;" or, in other words, the quackery tribe of medical books; whilst the third set is only so far professional, as to be readable by the profession, and so far popular as to be interesting to the man of general science. We shall concede to the Doctor the privilege of making the division, at the same time that we admit his undoubted right to rank his own lucubrations, with whichsoever of the three he pleases. He selects the third, first, because it "has no loftiness of pretension," next, because it is "neither professional nor quackical," but both. So says the author, so say we.

If the author had confined himself to the writing of a medico-empirical melange, we probably should have allowed his work to pass silently to its doom, and leave it unnoticed and unknown; but when we find him pertinaciously continuing to discuss in the different tracts which he puts forth from time to time, some most important question of medical ethics, and still reiterating the same absurdities, we cannot avoid noticing, and, at the same time, exposing them.

The author appears partial to divisions and definitions—though neither in the one nor the other does he evince much of a logical turn. Having disposed of medical writings, as seemed fit to him, he very naturally turns to medical men, and divides them also into classes; the physician, the surgeon, the general practitioner, and the *referee* practitioner. With the last we had no previous acquaintance, and, therefore, must take them on the Doctor's authority, as most probably he is, or would be, one of that class. After the division comes a definition, or something like it, in the following passage, in which a line of distinction is sought to be drawn between medicine and surgery:—

"To medicine belong philosophical acumen, a promptness of drawing correct inferences, from occasionally doubtful premises, a large grasp of mind, and comprehensive attainment. Surgery requires cleverness, and tact, and mechanical dexterity, and minute anatomical knowledge. I will not say of our friends, the surgeons, when they meddle with medicine, what was once said of the city orators in the British senate, that 'they make sad work of it;' but I will say, that important as anatomical knowledge, natural and morbid, is to us all, something more is required than a familiarity with 'the blood and filth of the dissecting-room,' to form the mind, and regulate the habits, and give character to the decisions of the qualified and real physician."*

This passage is admitted, by the author to have given offence, and to have been esteemed "unjustifiably severe." In the preface of his last book he nominally apologises, at the same time that he, in fact, reasserts his former opinions:—

"It still does appear to me, that individuals who devote their time and talents to the *higher* departments of surgical science, are not those into whose hands the practice of what is called medicine, in contrast with surgery, would be best committed. It has been urged, that there is a manifest inconsistency in acknowledging the surgeon-apothecary to be a *legitimate* practitioner, and not extending the same admission to the surgeon himself. But the cases are not parallel. The education and habits of what is called, in the present day, a general practitioner, are precisely such as to constitute him the best practitioner in general; and although it appears to me that the dignity and rank of the profession would be most securely maintained by withholding its highest honours from those who, whatever may be their talents and acquirements, have not been liberally educated; and although I would contend for the separate rights and privileges of the separate departments of practice; I would freely and fully admit the rectitude of an opinion, expressed nearly half a century since by a learned physician, that 'the best schools for medicine, after all, are an apothecary's shop and a London hospital.'"

The general practitioners being long since fully in possession of the greater part of the medical practice throughout the country, it would be rather indiscreet for a person who sets up as a *referee* practitioner to quarrel with them, or to seek to depress them; such an attempt would be altogether abortive, and serve no other purpose than to exclude him from what little he may have to do as a *referee*. The plan of attack is, therefore, directed against that class of practitioners denominated consulting surgeons, as being the persons now usually appealed to for advice in difficult and doubtful cases; hence it is that the following *feeler* is put forth :—

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* "I am aware that the charge above made on surgery only partially applies; and even where it does so, it is against the principles rather than the persons that I would direct my strictures; almost, perhaps, before the ink is dry with which I pen the present page, I may shake hands in cordial friendship with one or more eminent surgeons, whom I would and do refuse to meet in sick rooms, although *they* would readily obey the call to *medical* consultation."

> "In respect to surgery, I *must feel*, that *excellence in its pathological* and operative department requires such an exclusive occupation of mind upon certain particulars as *is inconsistent* with pharmaceutical details, *ready habits of discernment in disease*, or more reflective and generalising powers, brought to bear upon the same subjects."

This comprises the whole question at issue; we at once join issue with our Doctor upon it; and before we lay down the pen we shall show him that his cause has neither merit nor argument to support it.—Dr. Uwins assures his readers that "his strictures are directed against principles not persons." The distinction is just and fair—we adopt and shall adhere to it—we shall treat the question as if it were an A. B. case, as the lawyers say. The whole may be narrowed to this point—the physician ought to be preferred to the surgeon, What then are the grounds of the preference ?

The term physician is rather a comprehensive one; it includes several classes of persons differing most materially in education and other adventitious circumstances, usually admitted to be sufficient to constitute a difference of rank and station between men. They may be arranged as follows, beginning with the lowest and ascending by successive steps to the highest.

1st. Persons without any previous education, or attendance on lectures or hospitals may make a short visit to St. Andrews, pay a certain fee, and receive a piece of parchment purporting to be a medical degree, which entitles them to the name of—*Doctor*.

2d. These individuals, after going through this compendious process, may legally by virtue of this same purchased honour present themselves at the College of Physicians, demand an examination, pass it without difficulty, pay a fee, and forthwith be gazetted as—*Doctors*.

3d. Another set of persons may take up their residence in Edinburgh, Glasgow, or Aberdeen, for three or four *winters*, attend certain lectures during these periods, and spend the summer where they please. They may take to the sea, go into the whaling service, make a visit to "Savage Labrador," and return time enough to attend the winter classes—receive their parchment in due season, and be dubbed—*Doctor*.

4th. These same persons thus initiated may likewise go through the formality of an examination at the College of Physicians, pay their fees, and receive in return an extra or extra-ordinary claim to the title of—*Doctor*.

5th. Some young gentlemen enrol their names at Oxford or Cambridge — keep their terms — obtain a degree in arts — another in medicine, though neither of these temples of science can afford them any facilities for obtaining medical knowledge; still, after performing their exercises, and hearing certain lectures, they receive the magical parchment with the name and dignity of—*Doctor*.

6th. These men of collegiate honours, may, on going through certain other (we had almost said masonic) forms at the temple in Pall Mall East, be admitted to the fellowship which confers the *summos honores*.

Now these classes of persons differ as widely from one another in the extent of their acquirements, medical and general, as men can differ in these particulars; they agree only in one circumstance, viz. in the name which they bear; still, because they are all called *Doctor*, they claim to rank before persons called Surgeons, no matter what their education, acquirement, or talent. Is it necessary, to expose the absurdity of such a claim, to go further than simply to state the facts of the case plainly as we have here done? Is the man who bought his degree as he bought the tin case which encloses it, and who afterwards pays his toll at Pall Mall, and is passed on with his ticket in his pocket as freely as a traveller passes through a toll-gate,—is such a man, we say, to rank before a Cooper, a Lawrence, a Green, or a Bell? Is he to presume to shelter himself behind his purchased dignity, and to tell such men,—"I shall meet you as friends, but I'll not consult with you on a *medical* case?"

But our author may not probably be prepared to try the question on this extreme case; he may say we have contrasted the worst men of the medical class with the best of the surgical. Let him but once make that concession, and his cause is lost irretrievably. It would then come to be a question of personal merit, to be tried and determined by the consideration of the education, talent, acquirement and character, medical as well as moral, of these different classes of men. Each would stand on his own merits, divested of all accidental circumstances of degrees and titles; and they who purchased their honours in a decayed Scotch College, as well as the spruce University Gownsman, would speedily find their level, and settle down to a very humble rank in public estimation. Whence do these gentlemen derive "their reflective (qu. reflecting?) and generalising powers," which give them a superiority to the surgeon. Their medical education is notoriously deficient; to hospital practice they are almost strangers. What little they know is acquired by lectures, or reading. As professional men, they cannot for a moment bear comparison with the educated surgeon. But we are told that their scientific and classical attainments, their college honours, give them "reflective and generalising powers;" and the mere assertion is all we have for it.

On the assumption that Doctors possess these powers, whether obtained by purchase or conferred by magic, we are not informed. Our *purest* "would and does refuse to meet in sick rooms" individuals belonging to a class of men whom he admits to be "the most honourable, the best informed, and *demonstrably the most useful* of which society can boast." (Pref. to Indigestion, p. 7.) At the same time that his *purest principles* justify him in meeting and consulting with a St. Andrew's Doctor, or the merest dotard in the whole college. In a case of difficulty and danger his *principles* would justify him, and even require of him, to prefer the assistance of any individual, however inefficient, who bears the name of Doctor, to the matured and practical wisdom of an experienced surgeon, even though the life of a patient be compromised by this adherence to *principles*. *Principles*, did we say? Yes, they are the principles unblushingly set forth in the prefaces to the works of a *pure* Physician. These are the principles acted on for ages by the votaries of the Castle of Indolence, as Garth called the temple in Warwick Lane. These are the practices which have gradually stripped them of whatever credit or influence they may have possessed with the community, and have left them without patients and without fees. They fenced themselves round with forms and privileges in their Castle of Indolence in Warwick-lane, whilst the outposts were gradually taken and occupied by their enterprising opponents, and when they lost all dominion and power they evacuated the fortress, and, like the back-woodsmen, moved westward and cleared the ground for a new settlement. There too their precincts are invaded, they find themselves hedged in on all sides; ere long we expect to hear of their making another move, still passing westward in their retreat, and their castle, like the toll-house at Hyde Park corner, which it resembles in more particulars than one, will be moved further on as they retire before the approach of population and intelligence, giving way to their unsocial habits, whilst they hold fast to nominal rights—to parchment titles. Our *purist* must see all this, or he is incapable of seeing any thing; yet he will neither amend or alter his principles or practices—he seems resolved to maintain them to the last, and like an aristocrat of another class, "is resolved to stand or fall with his order,"—and fall —— we need not write the passage; we shall merely add, "Quem Deus vult perdere prius dementat."

After having exposed his ethical creed, our author gives us an insight into his medical doctrines: he describes them, for the most part, by their negative rather than their positive characters, which leaves us in a very happy state of uncertainty as to whether they are any thing, every thing, or nothing. Thus, "he does not subscribe to the doctrines of Clutterbuck or Broussais, but to both and to neither;" p. 2. Again—"Medical science is of such a nature, that a great deal of what is good in practice will occasionally connect itself with what is futile or even false in theory," p. 3; or, in other words, from falsity truth may follow. The Doctor perceives acutely enough what he calls "the *ad absurdum* extremes of medical theories," but is altogether blind to the *ad absurdum* extremes to which he pushes his ethical principles. He places in rather a conspicuous light the absurdity of the exclusive doctrines of those who attribute all maladies to "mucous membranes," "stomach," "liver," "colon," or "brain;" and claims some credit for acumen in discovering that the disease may be "one, all, or neither;" but does not see the absurdity of attributing "reflective and generalising powers" solely to the Doctors. Thus he steers an intermediate course, so as to reconcile differences, and acquire for himself the reputation of belonging to those free and easy persons who have been somewhere called the *in-medio-tutissimus-ibis* class, which must form a useful ingredient in the character of a *referee* practitioner. We noticed the sort of reasoning resorted to, to show that bad practice may follow from correct principles; the following extract will enable the reader to judge how far physicians can support a superior, much less an exclusive, claim to "more reflective and generalising powers" than other persons:

> "One physician, in particular, has urged the propriety, in spite of *inflammatory* and *hæmorrhagic threatenings*, of laying the bosoms of our patients bare, and dashing cold water on the surface of the breast,—under the feeling, I suppose, that we, by this practice, impart a contractile tone to the pulmonary vessels, and obviate the irritation, *which owns weakness as its source*. To me it would appear that this treatment is, in *principle*, and in the *abstract*, *correct*, but that, like all other abstract principles, it will prove dangerous to put it into practice without great care and circumspection; and, at any rate, when had recourse to, its employment should be early instituted."

We shall briefly say, that the principles "which own weakness as the source" of inflammation of the lungs, are too absurd to require further exposure than a mere notice of the fact, that such are even now admitted by a physician or two; and the practice which proposes to cure such "inflammatory or hæmorrhagic threatenings" by affusion of water on the "exposed surface of the breast," is what we will not trust ourselves to designate by a name. It was such vagaries as this that Dr. Gregory sought to hold up to the contempt of his pupils, when he said, "Ninety-nine out of a hundred medical facts are medical lies, and all medical doctrines are stark staring nonsense." We take the words from Dr. Uwins' Compendium, p. 372; we append the extract as a fit commentary on the theory and practice indicated in the preceding passage, and having done so, we ask him and our readers this plain question—"Can he be serious or sincere, in continuing to assert that the devisers of "stark staring nonsense," which they dignify with the title of Medical Doctrines, are to rank before the educated Surgeon? Is the opinion of that "one physician," who would bare a man's breast, "in inflammatory or hæmorrhagic threatenings," and dash it with cold water, to be preferred in a case of difficulty, before that of one of the "best informed, most honourable, and *demonstrably* the most useful class of which society can boast?" Finally, and we shall have done with the subject—Whether ought the community to place more reliance, in times of difficulty and danger, on the *pure* physician, whose *principles* are such as to justify an adherence to such practices; or on the surgeon, who, trained in a hospital, had learned his profession, not from books, but at the bed-side of the patient? Such a man as is described by our purist (and whom, he asserts, he would refuse to meet in a medical case), when he says, that "Some months since, he surprised many, and delighted all who heard his lectures, by a manifestation of splendour of genius, correctness of taste, richness of information, and rectitude of principle." (Introduction to Compendium, by Dr. Uwins.) One word more, and we have done with the principles and the practice. In the very page which precedes that from which this extract is taken, our author assigns the characteristics of physicians to be, "philosophical acumen," "prompness of drawing correct inferences," "a large grasp of mind," and "comprehensive attainment;" and the assumed possession of these constitute the grounds on which he rests their claim to rank before surgeons. But, with a dulness of perception only to be met with in a worshipper at the Castle of Indolence, he recognizes in a surgeon, whose lectures he had attended, "correct taste," "great information," "rectitude of principle, and splendid genius;" yet he refuses to consult with him. He will meet this same man as an *equal* in society, (what condescension!!) but not "in the sick-room of a patient." Verily, Doctor David Uwins must be a towering genius.

A Concise Description of the Locality and Distribution of the Arteries of the Human Body. By G. D. Dermott, Lecturer, on Anatomy and Surgery. London, 1827.

The Surgical Anatomy of the Arteries of the Human Body, designed for the use of Students in the Dissecting Room. By R. Harrison, A.B., T.C.D.

We have placed these treatises together, not merely because they treat of the same subject, but because it affords us an opportunity of contrasting the views and opinions of their authors, as well as the plan and execution of their works. Nothing is more necessary to the proper performance of surgical operations, than a knowledge of the course and distribution of arteries, as well as of their relation to contiguous parts. To facilitate the acquirement of this knowledge, is the avowed object of the works before us; but this is one of the few particuin which they agree—we mean as to matters of opinion, not as to matters of fact. It is very justly observed by Mr. Harrison, that students attend with most earnestness, and therefore with most benefit, to such anatomical descriptions as are interwoven with practical and physiological remarks; and further, that those practical or physiological inferences are most appreciated, which are drawn from anatomical relations. Accordingly, we find his book throughout enriched with a great number of practical remarks, drawn from his own observation, as well as from the experience of others. This is what has rendered the work so useful to practitioners; but, in order to extend the sphere of its utility, the description of each important vessel is prefaced, by remarks on the best mode of prosecuting its dissection, and of displaying the relative position of the parts contiguous to it ; so that students, in the dissecting room, find it a most valuable auxiliary. The author had, in the first instance, proposed to publish with the work coloured plates, explanatory of the relative anatomy of arteries in situations where the more important operations are required, but abandoned the idea from a consideration of the increased expense it would entail on the purchasers.

These views have already met the full approbation of the profession; the sale of the work is a sufficient indication of the estimation in which it is held. Mr. Dermott, however, if we may judge from his preface, either has not read the book, or does not agree in opinion with its author on the topics referred to. He describes his work to be, " an anatomical outline of the arterial system, without there being attached to it any physiological inference or surgical precept." And though it is intended as " the student's first lines," yet no instructions are given as to the modes of dissecting or exposing parts ; further, though it is contemplated that it may be useful at a more advanced period, " during their practical career, and in their operative days," the modes of making incisions, and of conducting operations on arteries, are altogether omitted. To compensate for these omissions, which to us appear serious defects, some plates are added ; and we regret to say, that we cannot congratulate the author on the discrimination displayed in the selections of the subjects for his delineations. Mr. Harrison points out the proper subject for such drawing—viz. " arteries which may require operations ;" these would be of some utility in a practical point of view, and would be some compensation for any increase in the price of the work ; but Mr. Dermott seems to entertain very different views of the matter; and has selected for the subjects of his diagrams—1st. " The distribution of the arteries of the brain and spinal marrow ;" 2d. " The branches of the cœliac artery ;" 3d. " The arteries given off from the abdominal aorta." Should our readers inquire the reasons of the choice, we must confess our inability to give a reply, as the author has not deemed it necessary to afford us any insight into his motives or views with regard to this subject. The following is a favourable specimen of Mr. Dermott's style of description ; we may observe, that the plan and order are nearly the same as those adopted by Mr. Harrison :—

" The *Arteria Carotis Communis.*—The right carotid arises from the bifurcation of the arteria innominata, posteriorly to the cartilage of the right first rib :—the left carotid from the arch of the aorta ; and having made its inclination to the left side of the trachea, and its emergence from behind the left side of the first bone of the sternum, ascends precisely like the right, laterally to the trachea ; first upon the longus colli, and then upon the rectus capitis anticus major ; the two diverging a little, so as to leave room for the interposition of the larynx ; and corresponding with the superior cornu of the thyroid cartilage, or the cornu of the os hyoides ; each bifurcates into the external and internal carotids.

" The artery, during its ascent, is *bounded—internally,* first, by the trachea and œsophagus, and higher up in the neck by the larynx and lateral lobe of the thyroid gland, which latter organ frequently overhangs it a little : *externally,* by the internal jugular vein and par vagum : *posteriorly* by the muscles that it ascends upon : and *anteriorly,* at the lower part of the neck, by the beginning of the sterno-thyroideus, and hyoideus, and the commencement of the anterior belly of the omo-hyoideus; also, still more extensively, and superficially, by the sterno-cleido mastoideus; the upper inch, however, of the artery is uncovered by the latter muscle, and seen anteriorly to its edge in a deep angular-shaped cellular cavity, which is bounded before by the angle of the thyroid cartilage, and behind by the anterior edge of the muscle,—here its pulsation can be felt, as it is only covered by the common integuments, platysma-myoides and by the fascia of the neck (which coverings stretch from side to side over this cavity), and the investing sheath of the carotid.

" *Concomitant Organs.*—Those contained *within the sheath* of the carotid consist of the internal jugular vein, situated by the outer side of the artery, and the par vagum between and rather behind them ; these are placed in the *outer side* of the sheath, and are parted from the artery by the cellular septum of the sheath. The concomitant parts *outside the sheath*: the sympatheticus maximus is behind the sheath; and the descending branch of the ninth pair of nerves on the fore part (sometimes in the sheath), covered by the anterior edge of the sterno-cleido mastoideus muscle along with the sheath itself."

The arteria innominata is here described as bifurcating behind the "cartilage of the first rib." According to Harrison, it divides opposite the sterno-clavicular articulation, which is a correct statement of the fact, as every practical surgeon knows; for he is well aware, that the innominata is endangered, particularly in young subjects, in the performance of tracheotomy, which would not be the case if it ceased at the cartilage of the first rib. Moreover, if the latter point were the limit of its extent, it would be impossible to apply a ligature on the artery under any circumstances, as it could not be drawn above the chest by any degree of extension of which the neck is capable.

In the description of the femoral artery, a division is adopted, we believe quite unusual and unnecessary; it is divided into "femorales communes," "femoralis superficialis," and "profunda;" the first being the part intervening between Poupart's ligament, and the origin of the profunda, which, with the continued trunk, are regarded as resulting from its bifurcation. This appears to serve no useful purpose; it tends rather to embarrass the description, more especially as it is admitted, that "this bifurcation is sometimes formed by the termination of the extenal iliac artery beneath Poupart's ligament, and that there is then no common femoral artery," p. 117. The course and relations of the vessel are thus described:—

"The superficial femoral artery: but, properly speaking, the artery passing through the thigh to supply the leg and foot. It is a large artery that descends nearly in a line with the common femoral artery, and therefore seems to be its continuation. It arises from the bifurcation of the common femoral artery, and passes downwards, rather backwards and inwards, through the internal side of the thigh, inclining in its descent gradually from the groin to the ham. It first descends in front of the pectinalis muscle; afterwards in front of the interstice, between the lower edge of the pectinalis and the upper edge of the triceps adductor longus (which is in correspondence with a part of the triceps adductor brevis); then in front of the insertion of the triceps adductor longus, and consequently upon about an inch of the tendon of the triceps adductor magnus; lastly, it perforates the tendon of the triceps adductor magnus, enters the ham, and becomes the *popliteal artery*.

"The artery, during its descent, is bounded externally, first, by the upper part of the rectus femoris, and still lower (for its two lower thirds) by the origin of the vastus internus: internally and posteriorly it is bounded by the layers of adductor muscles, in front of which I have stated that it descends; viz. the pectinalis, the triceps adductor longus et magnus; and anteriorly or superficially, it is bounded in the middle third of the thigh by the sartorius.

"Above the middle third, the artery is situated in a deep triangular hollow, bounded internally by the pectoralis (*q.* pectinalis!); externally, by the upper part of the rectus femoris; and anteriorly and inferiorly by the sartorius: here it is only covered by the common integuments, fascia superficialis, and the fascia lata femoris. In the middle third of the thigh, as it is behind the sartorius muscle, it is contained in a strong sheath, called the *canalis tricipitis*: the superficial side of this sheath is formed by a *remission of tendinous fibres* given off from the origin of the vastus internus, (by the outer side of the artery,) and by another *remission of tendinous fibres* given off from the tendon of the triceps adductor longus (by the internal side of the artery); these *two remissions intersect* over the artery, so as to form a ligamentous stratum, which is the superficial side of the sheath, and which is flatly covered by the sartorius muscle: the posterior or deeper side of the sheath is formed by the meeting of the origin of the vastus internus and the tendon of the triceps adductor longus, behind the artery at the linea aspera."

The author, in this and some other passages, seems to have followed a guide, in whom he securely trusted; and so long as he did so, his description went on fluently enough, and, we may add, with sufficient precision; but as soon as he committed himself to his own resources, a *remission* speedily ensued. We adopt the word *remission* from Mr. Dermott, but we use it in a sense totally opposite to that which he seems to attribute to it. It usually implies a partial suspension or cessation of a given action or condition. In the passage before us, it means quite the reverse. When we hear such expressions, as "a remission of tendinous fibres," from one point to another, and "two remissions intersecting" or decussating, what other impression do they convey to the mind, than that he who uses them, is playing at a sort of game of cross-purposes with words, as well as with facts?

We remarked, at the outset, that Mr. Dermott did not seem to be acquainted with the other work so frequently referred to, and so generally esteemed, by the profession; we have already stated some of the grounds of this opinion, which seems further supported by the following passage from the preface:—

"Some anatomists, though they may describe exactly the length and the direction of each artery, yet only, perhaps, describe its relative position with regard to some few muscles; or they speak of the relative muscular position in too general a way to convey any precise idea of its connexion with the arterial; and, in certain instances, indeed, they seem to have disregarded the muscular relationship altogether."

The remark, certainly, does not apply to Mr. Harrison's work, which we can recommend to the notice of Mr. Dermott, both for the clearness of its descriptions, as well as for its practical utility; and probably in his next edition, he may feel disposed to omit the plates, and substitute something of more value to his readers.

ST. BARTHOLOMEW'S HOSPITAL.

"SINGULAR VARIETY OF HERNIA."

We shall transcribe the history of this case, and the description of the operation, &c. verbatim, from Mr. Earle's case book, for reasons which will appear in the sequel.

"John Harris, ætat. 51, watchmaker, was admitted into Darker's Ward, about twelve o'clock on the night of Thursday, October 4th, under the care of Mr. Earle. It appears that he has had a hernia for many years: it has caused no inconvenience: he had worn no truss, and it had not been reduced for two years. On Wednesday, while at stool, he coughed, and the tumour suddenly enlarged, and gave him considerable pain. He had been costive for two days previously to the evacuation on Wednesday. Finding the pain increase, and tenderness of the belly coming on, he sent for a surgeon on Thursday, who tried, ineffectually, to reduce the tumour, and sent him to the Hospital, at midnight of the same day. Upon examination, a large oblique scrotal hernia is found on the right side, reaching to the bottom of the scrotum, on the lower and back part of which, the testicle is to be felt very distinctly. The scrotum is tense, and somewhat painful, but not much discoloured, and he complains of tenderness of the abdomen on pressure. He is vomiting frequently, has a quick and contracted pulse, anxious countenance, and clammy skin. He was placed in the warm bath, and the taxis diligently applied by the dresser, but without effect. Mr. Earle was consequently sent for, and arrived between two and three o'clock in the morning. By this time, the symptoms were very urgent, and he judged it right to have recourse to the operation without delay.

Operation.

The operation was performed about three o'clock, by Mr. Earle, who commenced by making an incision from opposite the external abdominal ring, to the lower part of the scrotum, dividing the skin and cellular membrane beneath, and exposing the superficial fascia. There was not much bleeding from the divided external pudic. A small puncture was made through the fascia superfilialis, and a director introduced through it, upon which the fascia was divided by a probe-pointed bistoury. The cremaster muscle, thus exposed, was next divided in a similar manner, which brought the sac into view. The superficial fascia was thicker than natural, and considerable alteration had taken place in the structure of the cremaster; it was bigger than usual, and its fibres connected into strong white, tendon-like cords. The peritoneal sac, adherent to the cremaster and cellular tissue adjacent, was next very carefully divided, and the displaced intestine brought into view, which appeared to be inflamed, but not gangrenous. The contents of the sac were evidently large intestine, and on examination, found to be the cæcum and part of the colon, which were adherent to the sac. The fore-finger of the left hand was now passed into the sac, and pushed in the direction of the external ring, through which it was readily passed, proving that no stricture existed there. Mr. Earle next ascertained that there was no cause of strangulation in the inguinal canal, or at the internal ring. The two rings were almost closely approximated. On handling the colon, Mr. Earle thought he felt something hard within it. This, he observed, was not fœces, for it was immoveable, and felt like a thickened piece of intestine within another, there being no evident cause of strangulation, but yet symptoms of it; and no small intestine to be seen entering the large gut, together with the presence of the foreign body in the colon, resembling small intestine. Mr. Earle concluded that there was introsusception. He made an incision into the colon about an inch and a half long, through which some dirty-coloured fluid and much flatus escaped. This was done to lessen the bulk of the tumour, Mr. Earle conceiving, that the urgency of the symptoms warranted it. The coats of the divided intestine were somewhat thickened, and eversion of the villous coat took place, so as to encroach considerably on the wound. Through the wound of the gut, and projecting into the colon, in the manner the uterus does into the vagina, might be seen a body, about two inches in length, having an aperture in its middle, which appeared to be an involvulus. Mr. Earle's finger readily passed backward along the colon, through the external ring, but he was unable to push his finger in the direction towards the stomach, on account of some thickened folds of the mucous membrane."

The preceding account, we understand, was written by Mr. Earle himself, on a sheet of foolscap, and transcribed by the dresser of the day into the Ward-book. We shall have many observations to offer on this "singular variety," but will first accompany the poor fellow through his illness, and his "finish" in the dead-house.

After the operation, the patient was very much depressed. Thirty minims of laudanum were administered in a little warm wine; an injection of warm water was thrown up the rectum, and manifested itself at the incision of that portion of the colon which helped to form the "singular variety." About noon of the same day he appeared somewhat rallied; his pulse was small and weak, tongue covered with a viscid layer of mucus, his expression very dejected. His general appearance resembled that of a man in the latter stage of peritonitis.

6. An anodyne draught was prescribed last evening, but he passed a very indifferent night. Pressure over the abdomen produces but little pain. A considerable quantity of fecal matter has passed through the "singular" incision in the colon. Arrow-root, tapioca, strong beef-tea, &c. and such like nutrients, to be taken ad satisfaciendum Four ounces of wine daily, and to continue the laudanum at night.

9. Much the same. There has been no decided improvement since the 6th. His nights have been restless and disturbed, his countenance that of a dying man. The fecal matter continues to pass through the "singular" incision. Pergat. in usu med.

12. He has been gradually getting worse since the last report. His nights have been more disturbed, his tongue more brown, with much arterial excitement. Pergat.

14. Rapidly sinking. He has hiccups, and all the percursors of death. He lingered until the evening of the following day, when he sunk.

Sectio Cadaveris.

The cavity of the abdomen exhibited unequivocal evidences of general peritonitis. The convolutions of intestines were, for the most part, agglutinated to each other, the connecting medium being organised. The intestines were slit up, but no introsusception, or any thing of the kind, was discovered. The bowels were permeable throughout. The tunics of the ileum were thickened for about an inch from the valve, the valve itself having a similar character. The sac and parts that formed the hernia, were firmly agglutinated to the sides of the inguinal canal. A tumour of a firm consistence, and equalling in bulk an ordinary sized orange, was discovered on the anterior superior surface of the scrotum. A section of it presented a structure, consisting of granulated fat, intersected with ligamentous striæ, a structure frequently the precursor of cancer. Mr. Earle, with much significant gesture, attempted to characterise it by a Latin quotation, "rudis indigestaque moles."

Now then for a few observations, as deduced from a general consideration of the case, in order to explain its "singular variety." In the first place, we have to observe, that the history given of the case, previous to the "singular operation," as recorded in the ward-book, betrays, altogether, a narrow and isolated view of the disease; it refers exclusively to the certainty of its being incarcerated hernia, but we will presently show that such at no time existed. The man, for some months previous to his death, had experienced a dull sensation of pain in the right iliac region, which, two or three days previous to his admission into the hospital, rather suddenly became of an acute character. His bowels became costive, and remained for two days uninfluenced by the action of medicine in the evacuation of their contents. On Wednesday, the day prior to his admission, he felt an inclination to relieve himself by stool, when, by the powerful compression of the viscera in the efforts at evacuation, a portion of intestine was protruded through the abdominal ring. The pain immediately became violent and excessive, but declined rather to its previous state in the course of an hour. During the night it augmented in intensity, and on the following day a surgeon was called in. He regarded it as incarcerated hernia; accordingly, employed the taxis, but failing of success, he had him conveyed to the Hospital. Thus much of the history of the case, as elicited by ourselves from the patient. It was stated in the sheet of foolscap, that he "vomited frequently" when admitted, having an "anxious countenance and clammy skin," striking symptoms of the rapid progress of enteritis. That there was a hernial tumour, no one will question—that the cutting into the *inguinal canal*, under such circumstances, was perfectly correct, is equally obvious. Not so with cutting into the *gut* itself. The intestine contained in the hernial sac, was not strictured, no incarceration could be detected; and Mr. Earle, on grasping that portion of gut containing the cæco-iliac valve, from some strange misconception, regarded it as a "*foreign* body;" when he immediately concluded, from *that* circumstance, that the case was one of "introsusception." It does not appear that Mr. Earle made any attempt to disentangle the introsuscepted portion of bowel. Having in his recollection the splendid feats at St. George's Hospital, and having a desperate "longing after immortality," he chose the accomplishment of a "singular" achievement, and slit open the intestine below the "foreign body," that is, the supposed "introsusception;" furthermore this extraordinary operation was undertaken, "to lessen the bulk of the tumour." But enough. It is evident that Mr. Earle's was a strange misconception altogether. The case was unquestionably, from beginning to end, one of enteritis. The dull pain that the patient had experienced for some months previous to his death, will account for the thickened state of the valve of the ileum, and the inch of intestine—it was the result of chronic inflammation. We have given the case under the head of "singular variety of hernia," as it is reported by the "select" at the Hospital, and Mr. Earle is "getting it up" under that name, for Roderick's forthcoming Fungus.

[Since the above report was written, Mr. Earle has himself published the case; and although we cannot extol his practice, it is impossible to withhold from him the praise of candour.]

MIDDLESEX HOSPITAL.

CASE OF FRACTURE OF THE CRANIUM.—OPERATION OF TREPHINING THREE WEEKS AFTER THE ACCIDENT.

A CHILD, six years of age, was brought to the Hospital about the end of last month, with a compound fracture of the upper part of the os frontis, near its junction with the parietal bone, and depression of the skull to a considerable extent, which formed at the seat of the injury a very evident cavity. The child, for some time after the accident, remained in a state of stupor, but at our first visit appeared scarcely to be suffering from it at all. He continued to go on for about a fortnight singularly well, and seemed almost to have surmounted every danger. The wound, however, never put on a healing aspect, and the bone assumed that dark greenish appearance, which is the sure indication of mischief below.

On the tenth day after the accident, we observed that he was restless, his skin hot, and his tongue less clean than before, but he did not complain of pain, and his pulse was not above the natural standard at his period of life.

On the 21st day, Mr. Mayo was informed that the boy was in a state of convulsion; and, on our arrival with that gentleman, we found the child much changed for the worse. He was now in a state of complete coma, and occasionally convulsed, with dilated pupils, and stertorous respiration. His pulse had sunk to 58 in the minute. These symptoms, which had come on that morning, shortly before the visit, evidently pointed out that compression of the brain existed to a very considerable extent. Mr. Mayo, therefore, proceeded without delay to perform the operation of trephining. On removing the circular portion of bone, three ounces of excessively fœtid pus escaped. The dura mater was separated from the cranium to a great extent, and appeared to be in a very unhealthy condition, being of a dirty green colour, and covered at one or two points with small shreds of lymph.

Immediately after the operation, the patient's pulse rose to 100; the degree of stupor diminished very considerably, and the child became sensible to pain. The stupor has since entirely disappeared, but a hernia cerebri has taken place, and the patient seems again to be in very great danger.

Since the operation the child has been unaffected with stupor, and for a considerable time seemed to be doing well; a fungus cerebri however afterwards appeared, projecting through the opening made by the trephine. This has been twice cut off, but it soon re-appeared. A ligature was then applied, but without effect; for the fungus made its appearance. The ligature has again been applied. After the employment of the ligatures, no bad effect was produced, the child apparently not suffering from their use. Within the last few days the appearance of the little patient is much changed for the worse, and indeed he seems now to be rapidly sinking.

The history of this case shows, in an eminent degree, the difficulty of detecting that insidious inflammation of the dura mater, which is the frequent consequence of injuries of the head, and how far the derangement arising from it may proceed, without giving rise to any very decided symptom. It is also calculated to impress on the mind of the medical attendant, the necessity of a most scrutinising attention, in similar instances, to every minute change in the state of the patient—and to make him consider those symptoms of a very important character, which, under ordinary circumstances, are generally esteemed to be of a trivial kind.

GUY'S HOSPITAL.

FATAL CASE OF FRACTURE OF THE SPINE—LESION OF THE SPINAL MARROW AND DISEASE OF THE BLADDER, DISCOVERED ON POST MORTEM EXAMINATION.

The following case of fracture of the spine, which proved fatal on the twenty-first day after the receipt of the injury, will be found to bear upon the question, which our readers will perceive by the last Number of this Journal, was agitated at the Westminster Medical Society, namely, as to the change which takes place in the secretion of urine, in cases of severe injury to the spine; and the diseased condition of the bladder, which is also noticed as occurring subsequently to these accidents.

The patient, a stout Irish bricklayer's-labourer, about 25 years of age, was admitted into Accident Ward on the 1st of October, under the care of Mr. B. Cooper, on account of severe injury to the spine. The accident was occasioned by his slipping from off a ladder, at a distance of several feet from the ground, and falling upon some bricks; he was stunned, but speedily recovered his sensibility—he was somewhat intoxicated at the time of the accident, and when admitted, his skin was cold and pulse feeble. The dresser, Mr. Roots, informs us, that he carefully and attentively examined the spine, but could discover no displacement—there was some tenderness and swelling, apparently from extravasated blood, in the soft parts, about the upper dorsal vertebræ. The lower extremities were completely devoid of sensation and volition; the integuments of the abdomen and chest as high as the nipple, were also insensible. The *penis was partially erect*, the upper extremities were free from paralysis. Having suffered some time to elapse, until, by means of warm clothing, a degree of re-action was set up, twenty ounces of blood were abstracted from the seat of injury, by means of cupping, and ten grains of calomel were exhibited. In the evening there was considerable febrile excitement; a catheter was introduced into the bladder, and a saline febrifuge mixture prescribed.

Oct. 2. We visited the patient to-day, in company with Mr. B. Cooper, and his dresser, Mr. Roots, and turning the man over to examine the spine, could not perceive or trace any displacement of the spinous processes — there was swelling and tenderness (on firm pressure) about the upper dorsal vertebræ, the third or fourth especially, at which part, it might be supposed from the symptoms, injury to the spinal marrow had occurred. The upper extremities being free from paralysis, the spinal injury was, of course, below the origin of the axillary plexus; but as we have just stated, there was no perceptible displacement of bone. The lower extremities were completely paralysed, the integuments of the abdomen, and part of the chest, devoid of sensibility, the penis semi-erect, the breathing accomplished by the diaphragm alone. The pulse was strong, skin hot, and tongue furred: the bowels have not been relieved—bled from the arm, to the amount of fourteen ounces, and a purgative enema administered; the catheter introduced night and morning.

As from the date of this report the patient continued in much the same condition from day to day, it will suffice to state, generally, the particular circumstances that occurred. On the fifth day after the accident, there was supposed to be a slight increase in the sensibility of the integuments of the chest; if, however, it really did exist, it was very trivial. The bowels now were lax, and the motions passed involuntarily; purgative enemata had been administered, and the urine drawn off regularly night and morning.

On the tenth day, there were numerous vesications on the lower extremities; the urine had a strong ammoniacal smell when drawn off, but was quite clear, and being set aside (at our request), we did not find, on subsequent examination, that it had deposited any sediment. Sloughs had now formed on the nates and back, and the patient was evidently gradually sinking, having become much emaciated.

On the fifteenth day, there was a hectic condition of the system; the pulse, from having been slow and oppressed, had become small and quick. The paralysed condition of the parts previously enumerated, continued; the stools passing away involuntarily and unconsciously, but the bladder still was capable of retaining the urine, which was regularly drawn off night and morning; it smelt strongly, and was slightly mixed with purulent matter. The sloughs had increased, and nitric acid had been applied.

From this period to the time of his decease, the poor fellow gradually became worse; and it was truly piteous to see a fine stout, muscular fellow, thus, as it were, dying by inches. He sunk on the morning of the 22d, being three weeks from the date of his admission, and occurrence of the accident.

Inspectio Cadaveris.

We were not present at this, but were favoured by Dr. Hodgkin with a close inspection of the parts removed, as well as an account of the appearances observed. Dr. Hodgkin states, that when the body was put upon the table, and turned upon its face, for the purpose of examining the spine, then a displacement of the vertebræ was very apparent. This is somewhat extraordinary, as the patient was examined by Mr. Cooper, repeatedly by the dresser, and twice by ourselves, namely, on the second and third days of admission, but no irregularity could be discovered in the spinous processes. The notes, as made by us on the two successive examinations, stand thus—"There is no perceptible displacement of the spine." However, such was the fact, that displacement did exist; the body of the *third* dorsal vertebra being thrown forward, we suppose, in consequence of fracture through its articulatory processes (but this we could not satisfactorily ascertain), and the spinal marrow consequently was compressed by the arch of the vertebra. The theca vertebralis presented no unnatural appearance at this or any other part of the spine, except that it seemed to be somewhat distended; but on slitting open the envelopes, it was found that a complete lesion of the spinal marrow had taken place, at the point where the fractured vertebra had existed. The spinal marrow *above* the point of separation, to some extent, was much softer than natural, and the *lower* portion was still more soft; indeed, the central part on the right side was quite pultaceous. The mucous membrane of the bladder was thickened generally, and there were several patches of ulceration, especially at the lower part of the bladder, and these were covered by a brownish crust. It was remarked by Dr. Hodgkin, that he had seldom, or ever, removed a bladder, in a case of injury to the spine, which exhibited so little disease. Nothing worthy of observation occurred in the examination of any other part of the body.

SUPPOSED CASE OF FEMORAL HERNIA—AN ABSCESS, WITH A T INCISION.

On visiting this Hospital at noon, on Monday last, we were informed at the porter's lodge, that the "gentlemen were in the theatre," and that Mr. Key was about to operate upon a case of hernia. We hastened to the scene of many a "bloody deed," and found the patient upon the table. Such was the crowd of students, however, that we could only observe the patient was a stout muscular man, and had some kind of swelling in his left groin. Were we informed that it was a case of incarcerated femoral hernia, the strangulation having existed ever since the preceding Friday, that the patient had been in the Hospital only a few hours, and that the warm bath, blood-letting, and the taxis, had been unsuccessfully employed; the latter both by Mr. Key and his dresser. The operation therefore, was commenced by Mr. Key making a longitudinal incision the whole length of the tumour, and a transverse incision at the base of the swelling so as to form the letter T inverted, in the manner of operating for femoral hernia, particularly taught at this school. The incisions being completed, a director was next used, for the purpose of dividing upon it the successive layers covering the supposed hernia, when lo, a small quantity of matter escaped. The operator now discovered that the supposed hernia was merely an enlarged gland which had partially suppurated; the T incision was therefore "done up," to use a dresser-like phrase, and the man was put to bed.

On the following day, after the operation for popliteal aneurism was concluded, Mr. Key addressed the pupils nearly, as we can recollect, in the following terms:—

"Gentlemen,—One word before we part, respecting the case on which I operated yesterday, and I wish particularly to mention it, because it is a case on which much misconception may arise in your minds. The facts are these: a man presented himself at the Hospital, yesterday morning, with a tumour in his left groin, in the situation of femoral hernia; it was painful, and tender upon pressure; the man said, that it came down suddenly on the preceding Friday, when engaged in violent exercise, and that feeling sick he left his work; further, that his bowels since that time had not been relieved. From this account the case was supposed to be femoral hernia, and measures were accordingly employed for its reduction; there was certainly something curious about the feel of the tumour, but after consulting with my colleagues, I determined on cutting down, in order to ascertain its nature; and I laid it open, as you perceived, in the manner of hernia. The result was, that I found a suppurating gland in the situation of femoral hernia. My motive in operating, was to ascertain whether hernia existed; if hernia had been present, and I had not operated, it would justly have been said, that I allowed the man to die. I do not consider, therefore, Gentlemen, that the case can reflect any discredit upon my practice individually, or upon that of myself and my colleagues collectively."

There was considerable applause at the termination of Mr. Key's explanatory observations. With respect to the patient, we found that aperient medicine had been given to him, and his bowels had been very freely acted upon; he was suffering from slight febrile excitement, the pulse being rather quick, and tongue somewhat furred, but was, upon the whole, comfortable. A poultice was laid over the "T incision."

We took down the following statement from the patient, and pledge ourselves for its accuracy:—

J. C., a stout middle-aged man, says that he was in good health until Tuesday last, when, being engaged in very laborious employment, he discovered a small swelling of the size of a pea in the left groin; it was not painful, and he continued to work throughout Wednesday and Thursday, but on Friday declined, as the swelling had got larger, and was then painful. On Saturday night it felt very hot, and was in much pain, and on Sunday at noon, he felt cold and had shiverings, so that he was obliged (using his own expression) "to creep round the fire," he felt generally unwell, had lost his appetite for two or three days previously, and felt qualmish. His bowels, he said, were relieved on the Friday, and not since. On the following morning, Monday, he came to the Hospital about nine o'clock, was seen by the dresser first, and by Mr. Key subsequently. The warm bath was used, after which, blood was taken from the arm, and the taxis then employed, as it was also in the bath. No aperient or other medicine was given, and the operation was performed at noon in the manner we have described.

The patient's history of the formation and progress of the tumour differing so widely from that given by Mr. Key, we must, in justice to that gentleman observe that when we taxed the man with having told a different tale on the preceding day, he said, that "*they bothered*" him so much when "*they were working*" him, he did not know what he said. The colleagues to whom Mr. Key referred, were Mr. Cooper and Mr. Callaway. Mr. Morgan was not present.

OPERATION FOR POPLITEAL ANEURISM.

On Tuesday, Mr. Key performed the operation of tying the femoral artery in a case of popliteal aneurism.

The particulars of the case, with the operation and subsequent treatment, we must defer to a future occasion.

TO CORRESPONDENTS.

COMMUNICATIONS have been received from Mr. WILSON—Mr. EDWARDS—Mr. T. NUGENT, *Dublin*—MEDICUS—Mr. G. NESSE HILL—Mr. C. H. BREW, *Ennis*—AN OLD GENERAL PRACTITIONER—DUBLINENSIS—Mr. W. H. MERRY—A YOUNG GENERAL PRACTITIONER—VERAX—S.C.R.C.—JOHANNES—A CONSTANT READER—Mr. COLVAN.

Mr. N. is informed, that all the Numbers of the first edition of Vol. I. have long been out of print.

We are not aware that Dr. Davis has been appointed "Examiner in Midwifery" at the College of Surgeons.

We should feel obliged, if VERAX—S. C. R. C.—and "A PUPIL OF THE WESTMINSTER HOSPITAL," would confidentially favour us with their names.

ERRATUM *in the Speech of* DR. BLICKE *at page* 143 *of our last Number.*

For "Mr. Abernethy had said there was no necessity for passing a cathether in retention of urine, as the bladder would be rerelieved by absorption," *read,* "That if it were not passed the bladder would not rupture, if in a previous healthy state."

THE LANCET.

Vol. I.] LONDON, SATURDAY, NOVEMBER 10. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Lecture VI.

Of the various Modes in which the Child is transmitted through the Pelvis.

The fœtus, Gentlemen, may pass the pelvis, or attempt a passage, under *four* different presentations, and four different presentations only, and the presentations I mean are those of the *head*, of the *feet*, of the *breech*, and those in which the child is lying across the pelvis. Under one or other of those general presentations, cephalic, natal, crural, or transverse, the passage of the pelvis must be accomplished or attempted.

Of all the presentations, the cephalic are decidedly the most common; and of the parts of the head, that which presents most frequently, and which forms the presentation in all ordinary labours, is the *vertex*, or that part of the summit around which the hair is curvilinearly ranged.

Vertex presentation.—When the vertex presents, as in an ordinary labour, we find, in the commencement of parturition, that the face is lying upon the sacro-iliac synchondrosis, the occiput on the acetabulum, and the chin upon the chest; and in this position the head descends with facility, as here demonstrated. In consequence of the face lying in this manner towards the one, and the occiput towards the other side of the pelvis, the long length of the head stretching from before backward is in correspondence with the long diameter of the brim, which reaches, as already demonstrated, from side to side, the two diameters, as you perceive, here agreeing with each other. If the face lie forward, in the way here illustrated, the head will not descend with equal facility, the long diameter of the head being opposed to the short diameter of the brim. From the natural situation, therefore, evident advantage is derived, the face lying towards the sacro-iliac synchondrosis, and the occiput being opposed to the acetabulum, the long diameters correspond.

In a labour that is natural too, the vertex presenting, we further find the chin in this manner depressed upon the chest, so that the two parts are brought into contact with each other: observe the model. The chin thus placed upon the thorax, the occiput descends, and you bring the shortest of the three long diameters, or axes of the head,—that I mean which is stretching between the upper part of the forehead and lower part of the occiput,—to bear upon the long diameter of the brim; a great deal of clear space, into which, as you may see, the whole mass of my fingers may be passed, being retained in this manner on the side of the pelvis. If the chin be separated from the chest, so that the longest of the three diameters of the head, namely, the stretching between the chin and the vertex, is made to correspond with the long diameter of the superior aperture, a larger space is occupied in consequence, and (excuse the levity) the brim becomes brim full. Thus we find, on examination, that in this natural position of the head, the cranium lies in fact in that exact situation which, of all others, is the most favourable for transmission through the brim, the chin being brought upon the chest, the face upon the synchondrosis, and the occiput upon the acetabulum; under these favourable positions plenty of room is obtained, and the head of the fœtus readily descends.

When the head reaches the outlet of the pelvis, we then find it emerging under the following situation: the vertex presenting, the occiput lies out under the arch of the pubes, the face, and part of the os-coccygis and forehead, are deposited in the hollow of the sacrum, and the sagittal suture stretches along the *perineum*, or that portion of the softer parts which is interposed between the *genital fissure* and the *anus*, and of which I shall hereafter treat. Now if you examine this position of the head at the outlet, in comparison with those properties of the inferior aperture, which I formerly explained, you will see that nature, in an ordinary labour, places the head in the position the most favourable for passage. The face and forehead lying in the hollow of the sacrum, the occiput lying out under the arch of the pubes, the long diameter of the head accords with the long diameter of the outlet, for the long diameter of the outlet lies between the pubes and the coccyx, whence arises a great facility to the passage of the head. If the face had been to the one and the occiput to the other side, difficulty must have arisen, for the long length of the head would have been opposed to the shorter length of the outlet, and the passage would have been thereby obstructed; it is clear, therefore, that when the head passes into the pelvis under the vertex presentation, a turn is accomplished, pre-eminently called the *turn*; and by this the occiput, in the first part of labour on the side of the pelvis, is carried forward under the arch of the pubes. Suddenly the occiput may start forward into this position, but more frequently it turns gradually, so that unless you are continually examining, you may scarcely know when the evolution is effected.

Under presentation of the vertex, the face of the fœtus may lie on the symphysis pubis all through the labour, and in consequence of this unfavourable position, no small danger may arise; the mother herself not unfrequently suffers, and the fœtus often dies. When the vertex presenting the face lies forward in this manner throughout the labour, in the passage of the superior aperture, considerable difficulty may be occasioned, the long diameter of the head being opposed to the short diameter of the brim. If the head be large, or the pelvis small, it cannot be transmitted through the aperture; and even when the head is smaller and the pelvis more capacious, the chin of the child lying on the chest, so that, of the three long diameters, the shortest is opposed to the short diameter of the brim, it is not without strong uterine effort and many pains, that the descent is effected, and the bladdergut and vagina are all of them liable to suffer from the severe pressure to which they are subjected; besides the face lying forward, you may perceive that no part of the head lies out under the arch of the pubes, as in ordinary labour, nor does the occiput lodge itself in the hollow of the sacrum, without that loss of room which in this apparatus is so well demonstrated. You may observe, moreover, when the head emerges, that on the rectum and perineum, the occiput must bear most forcibly, and in those cases, especially in which instruments are unskilfully employed, contusions, lacerations, and sloughings, will not improbably be produced. To all which we may add, that, occasioning so much compression, the head is itself forcibly compressed; the fœtus not uncommonly perishing in consequence of cerebral contusion.

Important as this case is, I shall demonstrate the different parts of it again in the way of brief recapitulation. The vertex presenting, and the face lying forward throughout the labour, there is difficulty at the brim, because the greatest length of the head does not correspond with the greatest length of the aperture; the head, however, being frequently forced down by the strength of the pains, but not without much suffering from resistance and pressure. Further, the vertex presenting and the face lying forward, there is great difficulty at the outlet, arising from three causes, first, because no part of the head lies under the arch of the pubes; secondly, because the occiput does not fit in nor commodiously adapt itself to the hollow of the sacrum; and thirdly, and very principally, because the back part of the head or occiput is making so much pressure on the perineum and rectum, that it occasions bruising, laceration, and sloughing, with much resistance of those parts.

It seems, then, that where the face throughout the labour is lying forward on the symphysis, many difficulties are occasioned; what is it then, that the accoucheur can do in order to diminish, surmount, or remove them? What is there that he can with prudence do, and without committing the unpardonable sin of midwifery, the sin I mean, of those obstetric reprobates, the meddlesome and the pragmatic? That turning the child is universally unjustifiable when the case is indisputable, the dexterity great, and the circumstances are conducive, I will not venture to assert. And when the softer parts are lax, and the pelvis is capacious, and our dexterity from long practice such that we can introduce the hand into the cavity of the uterus, and lay hold of the child's legs, and bring it away with facility, by the operation of turning: I will not say that under such circumstances, we may not now and then be justified in making the attempt. By this operation we clear ourselves of the malposition of the head, the vertex becoming changed into the crural presentation. Decidedly, however, and in the strongest language I can use, I would reprobate this turning as a general practice in these cases, because you will be contusing the vagina, if you are needlessly pushing the hand up the uterus, because you will be tearing the womb, pulling the head from the body—meddling. Remember also, that until you acquire the dexterous use of the fingers, you must frequently be deceived when endeavouring to ascertain the situation. Often you might fancy the child's face is forward, when it is not; often, if you were to make a practice of turning, you would perform the operation without need, and when, perhaps, the child's head was lying in the position the most favourable for parturition.

If the softer parts are lax, the pelvis large, and the fingers dexterous, I will not assert that you may not be justified in doing what I myself sometimes have done, I mean rectifying position. Finding that the face of the child is forward, that the head is above the brim, that the passages are relaxed and capacious, you may put your hand into the uterus, you may lay hold of the head, as you would lay hold of any other body; and you may gently place the head with the face in the side of the pelvis; all this, I say, may be done, may be commended, perhaps, sometimes,—but beware, lest you rashly contuse or lacerate the softer parts. So, again, if it be clearly ascertained that the face of the fœtus is lying on the symphysis, when experience and practice are not wanting, if you have a pair of forceps, or a lever, you may endeavour to rectify the position with these instruments, proceeding, however, as I here show you, cautiously and with reflection, remembering that you are operating upon the softer sex; then having secured the cranium by means of one or other of these instruments, when the head is at the brim, you may lay the face on the side of the pelvis, and when it reaches the outlet, you may deposit it in the sacrum behind.

There is yet another practice proposed by Dr. Clark, and which seems to be excellently adapted to cases of this kind, recommending itself to our attention by its ease and safety. When the face lies forward, and the head is descended into the cavity of the pelvis, you may lay two fingers on the cheek, and pressing gently when the womb is in action, you may gradually transfer the face from the front to the back of the pelvis, gaining a little progress with every pain, and this, too, without injury to the delicate structure of the female, unless turbulence and violence unfit you for the duties of an accoucheur. So that to recapitulate in those cases in which the vertex presenting the face is on the symphysis, we may sometimes, though very rarely, attempt to turn the fœtus by the feet, or sometimes when the head is above the brim, we may effect the rectification by the hand, forceps, or lever, as demonstrated; or sometimes, lastly, and most securely, by laying the two fingers on the cheek, and gradually with every pain bringing the face towards the side, and ultimately into the hollow of the sacrum, a rectification of the unfavourable situation may not unfrequently be accomplished.

But what is to be done, should neither the rectification of the situation of the head, nor the turning of the child be deemed the proper practice? You cannot rectify perhaps: to turn the fœtus is impossible.—Why, in cases like these, Gentlemen, the general rule should be your guide: first, give a fair trial to the natural efforts, which the wise accoucheur who has seen much, and thought much, never hastily distrusts. If, therefore, no dangerous symptoms manifest themselves, let the womb act powerfully for four-and-twenty hours after the discharge of the liquor amnii, and notwithstanding its unfavourable position, the head will frequently descend. But if dangerous symptoms appear, the bladder becoming obstructed, the parts about the neck of the womb inflaming, the pulse rising in frequency, and remaining between the pains at 125 or more in the minute; or, if independently of these or other symptoms, the womb have been in strong action for twenty-four hours, the head not advancing—with *tenderness* and *prudence* the lever or forceps might be tried; or, lastly, should these instruments be unavailing, or should symptoms of danger manifest themselves, (to be effectually relieved by delivery only,) or even independently of such symptoms, should the head make little or no progress, though the womb have been in action after the discharge of the liquor for six-and-thirty, or eight-and-forty hours, compelled by an inexorable necessity, you must have recourse to the perforator, your reluctance being somewhat diminished by the recollection that, under such circumstances, the fœtus, even when unopened is generally born dead. In every labour attended with difficulties or dangers, there must be need for the exercise of a corresponding discretion; by individual contingencies, general rules must be modified, but adhering to the directions which I now prescribe to you, I am persuaded you cannot wander far from the correct line of practice.

To conclude then with a summary: when the vertex presenting, the face lies forward throughout the labour, and this is ascertained; in some cases you may turn, though with a trembling hand; in some cases you may rectify, always justified in trying that simple method of rectification, by lateral pressure with the fingers, as before mentioned. In the majority of cases, however, and especially if you are as yet inexperienced in the practice of midwifery, you may trust with confidence to the natural efforts; these failing, you may have recourse to the lever or the forceps; and these not availing, the perforator. Under the best management, (unless you can rectify,) these are bad cases, as the bruising, lacerating, and sloughing of the parts, and the death of the child, are to be apprehended.

Face Presentation.—When the head of the child presents, you sometimes have the face lying over the centre of the pelvis, the chin, I believe, usually lying on one side of the pelvis, and the vertex on the other, so that the greater lengths of the head, and the superior aperture, reciprocally correspond. Under the efforts of the uterus, the face presenting, the head is gradually worked down, and, at last, we find it lying in the outlet of the pelvis; the chin, at this time, usually taking its situation under the arch of the pubes, and the vertex and occiput in the hollow of the sacrum and coccyx, and upon the perineum; the child, when about to emerge, lying in the situation in which I now place it, with the ears on the side of the pelvis, the chin under the arch, and the occiput and vertex in the hollow of the sacrum and perineum, as before described. The head advanced thus far by a continuance of the pains, and the occiput being gradually rolled out from the hollow of the sacrum, the head is pushed into the world, the perineum, and all the softer parts, being stretched dreadfully, so that there is great danger of laceration, especially if you accelerate the escape of the occiput by the use of the lever or the forceps. I will suppose, then, that you are called to a case in which the face is presenting. What is to be done? must you meddle? must you use instruments? must you turn the child? Now, in the face presentation, as in the case already described, in which you have a presentation of the vertex, the face lying forward throughout the labour, I do allow that in occasional and exceptional instances, when the pelvis is large and the softer parts are lax, the accoucheur skilful and confident, and, above all, judicious, may carry the hand into the uterine cavity, and bring the child away by the operation of turning, laying hold of the feet as before described, and abstracting it under the crural presentation. As an *exception* to a general rule, this method of delivery may be proper enough; but observe, as a general rule of practice in face cases, with the whole weight of authority which I may possess with you, I condemn it. Do it ninety-nine times, and successfully, and I condemn it still; because you are meddling, because you are cramming your hand into the uterus without any sufficient cause; because you are, as it were, doing your best to tear the vagina; because ninety-nine operations undeservedly successful may lead to the hundredth, and the destruction of your patient. It is the same with respect to *rectification*; if you find the pelvis large, the softer parts lax, and your fingers very adroit, under such circumstances you may venture to introduce the hand, for the purpose of rectifying the position of the head, an operation sometimes perhaps accomplished with facility, while the head lies at the brim. In these cases, operating as I now demonstrate, with the fingers or the lever, you may make that which was facial, a vertex presentation. But understand again clearly, that this is an exception from a general principle—a practice unfit for the novice, though conceded occasionally to the adroit and experienced accoucheur. In presentations of the face, the stoical rule will apply; a rule which might with advantage be whispered into the ear at all times, when you are at the bed side — *naturam sequere;* delivery is a natural process, give therefore a fair trial to the natural efforts. When, then, you find a face case frequently, nay, generally, you have little to do; you need not send for another practitioner; you need not allow your minds to get into a state of perturbation, as if you had some mighty feat to achieve. You have only to sit quietly at the bed side, to support the confidence of the woman, to let the uterus act, to protect the perineum, to open your hands, as it were, and receive the child which nature deposits in them. If, however, the head be large, or the pelvis small, it may be in this, as in the vertex presentation, that the natural efforts fail; and, in such cases, you may try the lever or the forceps, but with gentleness, with caution, as on your dearest friend, bewaring lest you occasion a laceration or sloughing of the softer parts; and these instruments failing, should delivery be peremptorily requisite, you must then lay open the forehead, and discharge the contents of the cranium, when the head will readily descend.

Forehead Presentation.—Under presentations of the head, we sometimes find the forehead lying over the centre of the pelvis, instead of the face. And this presentation, made out in the way hereafter described, by a careful examination, can rarely, I believe, occasion much difficulty; for after there have been a few pains, the head turning somewhat, the vertex or the face descends, the case being afterwards managed by rules already prescribed. Ear presentations also occur, but they are so rare, or so easily conducted on the principles already laid down, that I consider it unnecessary to enlarge on them.

Foot or Crural Presentation.—By the Gallic accoucheurs, the crural or foot presentation is divided into no fewer than six varieties, in practice conveniently reduced to two kinds only, those in which the abdomen is lying *anteriorly* more or less, and those in which it is placed on the *back* of the mother, whether it bear a little to the right or left, or fall directly on the promontory of the sacrum.

Of all the crural presentations, the easiest and most simple is, that in which we find the abdomen of the child lying towards the back of the mother. Now, in cases of this kind, the mode in which the child passes the pelvis is this: Under the strong action of the womb, the legs are gradually pushed beyond the outlet of the pelvis, when the thighs coming within reach, the accoucheur lays hold of them, a napkin being interposed, in order to render the hold more secure. The thigh grasped, he next draws down in the axis of the pelvis, which, as you may recollect, stretches downward and backward at the brim; careful not to lacerate or bruise the parts, and swaying the fœtus from side to side, or a little backward and forward, as the motion one way or other may most facilitate the delivery. If the pains are frequent, the accoucheur co-operates with the pains, but if the pains are unfrequent or wanting, he draws notwithstanding; for when the delivery is once begun, and the *umbilical chord* is brought down, so as to be compressed between the fœtus and the vagina, delivery should be promptly accomplished, because, when there is much and continual pressure on the chord, the child dies. But of this hereafter. In cases of this kind, when the breech is passing, take care that you do not lacerate the perineum. When the breech is abstracted, the abdomen begins to appear: lay hold of the umbilical chord, and draw it forth a little, so as to prevent extension during the further abstraction of the child. When the thorax begins to descend, lay your finger in the side of the pelvis, and if you find, on examination, that an arm be disposed to come down, draw it out at full length, and lay it along the side, so as to prevent it from starting at an angle, and lodging against the brim of the pelvis. In general, however, the arms do not descend by the side of the thorax, so as to demand this manœuvre. When the axillæ are approaching the external parts, a precaution of no small importance becomes requisite; I mean, the preventing the arms from taking place behind the occiput, and from becoming impacted between the front of the pelvis and the head, so as to render extraction impracticable. Now, to prevent this accident, prudence requires, when the arm-pits approach the inferior aperture, that you pass up the fingers, so as to get a bearing on the arms, and throw them as much as may be upon the back of the pelvis, towards the face of the child; and with these precautions, the axillæ of the child being brought down to a level with the external parts, the body of the fœtus being thrown out of the way, and into such position as shall favour the descent of the arm, putting all the fingers, if practicable, about the bend of the elbow, and sweeping the arms in succession over the cheek, you disengage them from the cavity of the pelvis. When the arms are drawn forth, usually the head descends without further difficulty, more especially if the cranium be small, or the pelvis be capacious; but should difficulties arise, you may endeavour to throw the face and occiput at the brim, on the sides of the pelvis respectively, so that the greatest lengths of the head and the aperture may correspond with each other; and then, bearing the head towards the symphysis pubis, yet drawing on the whole in the axis of the brim, on a line stretching from the navel to the point of the coccyx, you cause the head to come down. The head descending in this manner, when it reaches the outlet of the pelvis, put the face into the hollow of the sacrum, and the occiput on the symphysis pubis, and then drawing downward and forward, careful not to lacerate the perineum, you complete the delivery.

Now all this, on account of its importance, I demonstrate afresh. The feet presenting, you suffer the womb to act till the thighs are lying forth in the outlet of the pelvis; then, gently grasping the legs, you sway the body a little from side to side, or from before backward, careful that the genital fissure sustain no injury. When the breech passes, guard the perineum; when the abdomen passes, draw forth a little the umbilical chord, so as to prevent its extension during the subsequent descent of the child. When the thorax approaches, cautiously, tenderly, yet effectually, pass the finger into the side of the pelvis, and if the arm on either side be descending, extend it, and lay it at length along the side of the trunk, as now shown you. When the axillæ begin to enter the inferior part of the pelvis, as here, be very careful, as they come forward, to press the arms, as demonstrated, toward the promontory of the sacrum, preventing their impaction between the head and the pubes, and in this manner facilitating their subsequent descent. The axilla reaching the outlet, throw the body, as now shown you, into the position most conducive to the descent of the arm; placing three or four fingers about the bend of the elbow, and in succession swaying the arms downward with a sweep over the face. Afterwards, abstracting the head with due attention to its position, guarding the perineum, and indeed taking care that the whole operation be conducted with that degree of force only which may inflict no violence on the mother or her child. *Vir consili expers mole ruit suâ.* Contusion, lacerations, sloughings, decapitation, dislocation, fractures—these are the dreadful evils to which brute force may give rise.

Under the crural presentation, the abdomen of the child is sometimes situated anteriorly, the case being just the converse of the preceding. Now when the abdomen, as examination shows, is situated on the front of the pelvis, there are *two* modes in which the child may be extracted, though not with equal facility; and first, we may draw down the feet as before, and the axilla being brought to a level with the outlet, we may extricate the arms by throwing the body thoroughly out of the way, getting the fingers into the bend of the elbow, and sweeping the arm out of the pelvis over the face of the child, behind the symphysis. Although, however, the child may be abstracted in this manner, you will find there is a difficulty in the abstraction of the arms especially, as indeed the machinery at this moment indicates to my feeling. Now this being the case, it is wise to throw the abdomen of the child to the back of the mother; and by laying hold of the thighs with the left hand, and spreading on the back of the fœtus the fingers of the right, you may sometimes transfer the abdomen to the posterior surface of the womb and vagina, making the turn I now demonstrate; when you produce a foot case with the abdomen seated posteriorly, to be managed by the rules already given. To make this change of situation, little skill may be required; but there is one point of nice determination, I mean the selection of the proper moment for performing the operation; for before the turn is made, you may, if you please, draw the head and arms into the pelvis; you may, if you please, impact them there, and you may, if you please, unwisely attempt to make the turn, when you have unwisely made the operation impracticable. But to proceed: "Incidit in Scyllam qui vult vitare Charybdem." In avoiding this error, you may fall into the other extreme; you may attempt to place the abdomen on the back, when only the tips of the feet are lying within reach, a practice unadviseable, as the turn, though accomplishable, must be effected with difficulty, seeing that a force applied to the ancles will not readily act upon the head and shoulders above. What, then, is to be done? On the whole, I think the best time for performing the operation, is when the thighs make their appearance; for in grasping them, you may get command over the body and other parts, the head and shoulders still lying above the bones of the pelvis, and of course not being impacted in the brim. It seems, then, that under crural presentations, it becomes the office of the accoucheur to co-operate by drawing down the child; but there still remains a question, on which I hope some of you have been ruminating, I mean, what is the proper moment at which the co-operation should be given? And here I may state to you a maxim of midwifery, on which, hereafter, I shall frequently lay stress; I mean, that in selecting the proper time of giving assistance, the accoucheur often shows his judgment, more than in the execution of the manual operation itself. The manual operations of midwifery are sometimes sufficiently easy, but much nice discrimination is required to seize the moment at which those operations should be performed. Let us suppose, for instance, a foot presentation, a first delivery, the parts rigid, the head large, the pelvis small, laying hold of the legs without reflection, you advance the child without difficulty, till the thorax enter the pelvis: but mark the result—in consequence of not selecting for your operations the proper moment, you find yourself, if I may be allowed the expression, on the horns of a dilemma; the legs have descended easily enough, the abdomen, too, has opposed but little difficulty, but the head and shoulders will not pass. Now if, anxious to avoid the laceration of the mother, you wait for a relaxation of the softer parts, the child lying as here demonstrated, with the legs in the world, and the head and thorax in the pelvis, its life becomes the sacrifice; pressure on the umbilical chord occasioning a suffocation, probably, as painful as the death of the felon who perishes by the rope. On the other hand, if desirous to preserve the fœtus, you draw down without delay, you lacerate and bruise the softer parts of the mother, so that by giving assistance at an improper moment, you endanger at once both the parent and her offspring. Aware of this risk, practitioners have endeavoured to lay down plain rules, which may enable us to decide when we ought, and when we ought not to interfere; and there are some who, not without reason, take their indication from the laxity of the parts, and the expansion of the os uteri, and if on examination they find that the parts are lax, and that the dilated os uteri is as broad as the disk of a crown piece, they commence the delivery, refraining from manual operations if the parts are rigid, or if the mouth of the womb be shut. There are others again, as Denman, for example, who ascertain the moment of interference by the descent of the child. If the breech is at the outlet, they deliver, and if it lie at the brim, they wait; the chord is not under pressure; the life of the fœtus is not in danger; a meddlesome midwifery is bad, and there is as yet no need for accelerating the birth. There are, again, other practitioners, who judge by a rule which, if of easy application, would perhaps be preferable to the former, and this rule is taken from the state of the umbilical chord. If the chord be pulsating strongly, they let labour proceed without interfering, considering that there is no danger of suffocation, as the fœtal heart is in full play; but if pulsation in the chord be weakened or suspended, they endeavour to abstract the fœtus as promptly as may be, unless they believe it to be lost beyond recovery.

For myself, I am accustomed, in my own practice, to combine these rules, and to act under the influence of all three. With me, of course, it is a maxim *never* to deliver while the softer parts are rigid and the os uteri is little expanded; but if the softer parts are relaxed thoroughly, and the disk of the os uteri exceeds that of a crown piece, I deem myself so far justified in assisting the delivery. But this is not all: although the softer parts are yielding, and the os uteri is dilated, under the impression that meddling is wrong, and that the natural powers are great, I give a fair trial to the natural efforts, waiting, as Denman advises, till the breech is pushed down upon the outlet, and the chord becomes compressed; and then, finding the breech in the outlet and the softer parts relaxed, I proceed with the delivery, not neglecting the examination of the chord, advancing more rapidly if the pulse fall, and in a more slow and gradual manner if the firm beat of the chord indicate that the child is secure, always bearing in mind another axiom of British midwifery, I mean, that the life of the child is invariably to be sacrificed to the security of the parent, and never accelerating the birth more than the softer parts will bear.

When we meet again, Gentlemen, we shall resume this inquiry.

LECTURES
ON THE
INTELLECTUAL COMPOSITION OF MAN,

Delivered at the London Medical Society by

DR. HASLAM.

Lecture IV.

On Reason and Imagination.

If the human mind admitted of a division into distinct powers and faculties, from being the result of such components, its investigation would be attended with few difficulties: we should proceed directly to its analysis, ascertain its contents, state its definite proportions, and finally display the manner of its operations. In conformity to such hypothesis, the examination of this subject has been usually conducted; but these analytic chemists of the human intellect have unfortunately disagreed concerning the component parts. The elements of one tribe of philosophers have been viewed as compounds by other sects, and they have continued their disputations on assumed principles, until their readers were confused, and good sense retired in disgust from the contest. According to my own views, I should not define reason as any inherent faculty we possess, and which, in the progress of our mental career, is necessarily unfolded; not a consequent development from existing germs, but an acquirement, like the rest of our intellectual possessions. If reason were an inherent and original faculty of the mind, it might be employed indiscriminately on all subjects of investigation, and be considered as the test or touchstone of decision; but it can exert no such intrinsic energies, and requires the substratum of knowledge, as the indispensable conditions of its display. What, for instance, could be the reasonings of a man on the operation for lithotomy, either high or lateral, who was wholly ignorant of the anatomy of the parts concerned? Without an anatomical basis, what would be the amount of our reasonings on physiology? Indeed it is evident, that the reasoning on all subjects in our own profession (which is named as the most obvious illustration,) demands the previous attainment of sufficient knowledge. There must be existing premises whereon to institute the estimate, in order to arrive at the conclusion. Reasoning, therefore, is not the mere acervation of facts that constitute knowledge, but the *employment* of that knowledge for particular purposes. The most skilful and extended contrivances of language are inadequate to any precise definitions of quantity and value: they may describe certain general relations of both, but can attain no accuracy. The utmost that language can perform, is a rude and uncertain *comparison*, whether it be occupied on heat, distance, magnitude, time, space, value, or aggregates. It can only state an object to be large or diminutive, without any determinate size: it may indeed, compare substances, but cannot fix any accurate standard, and its range is only through the grammatical and indefinite degrees of comparison. Among the many and discordant opinions that have been entertained on the subject of reason, some insist that it is the peculiar endowment of man; and if we speak of its highest operations, this will not be disputed: but there are some acquirements of animals, the result of their experience and practical efforts, which are, although in an inferior degree, fully entitled to the character of reason; wholly setting aside their instincts, which on a future occasion will be considered as tendencies or impulses, equivalent to reason, expressly furnished. If we consult that which is termed authority, for the definition of reason, we shall most probably be disappointed. Mr. Locke takes it up as a faculty of the human mind, "That faculty, whereby man is supposed to be distinguished from beasts, and wherein it is evident he much surpasses them;" and after much discussion about syllogisms, which he discards as auxiliaries to reason, he confesses, that "the reasoning by numbers is the most certain."

In the lecture which treated conjointly of language and numbers, a sufficient preparation was made to demonstrate the importance of the latter, and it is now the proper stage of the inquiry to point out their application to that process of the human mind, which is termed reasoning. It has been shown, that mere language is inadequate to the purpose. Speech and its written character, can competently describe the objects of perception, their attributes and mutations, and invest these fixtures and motions with appropriate terms: but without numbers the duration of their existence, or the celerity of their motions cannot be ascertained. The consideration of *distance* may be selected as the subject of our reasoning, and we may endeavour to define it solely by language. We may call it the intervening space between any fixed points: this however affords us no *precise* distance. We may conjoin all the attributives of augmentation and diminution, and term it a great, long, wearisome, prodigious; or small, short and trifling distance: but with all these epithets, we do not define any precise intervention of space, no actual admeasurement, to employ as the premises or data for our reasoning. Admeasurement implies some definite standard, whether it be termed a mile, a foot, or an inch, and likewise their accurate subdivisions, which imply numbers; and therefore the distance, by correct admeasurement, is stated as so many miles or aliquot parts of this space, and in a similar manner the inch may be divided into a thousand parts, and any number of these may characterise the precise distance. It will therefore be seen that we cannot proceed to any accurate divisions of space, without the auxiliary of numbers, and the same process must be instituted, although with different standards, to ascertain time, magnitudes, weight, value, heat, and a variety of others; and the standards must be uniform, in order that its divisions and multiplications may be correct. If the reasoning by numbers be the most correct, it will be expedient hereafter, to examine the nature of our reasoning, when these symbols of accuracy and precision are not applied: and it will be found that such reasonings must be conducted exclusively by language. It must not be left unnoticed, that by those who consider reason as an independent power and integrant faculty of the human mind, it is defined to be "the power by which man deduces one proposition from another, or proceeds from premises to consequences." This is a mere hypothesis founded on the doctrine of syllogisms, which assumed, that as reason was an integrant faculty and natural property of the mind, they could successfully train and direct its operations, so as to enable it to deduce one proposition from another: that is, to make two propositions out of one, which would be equivalent to splitting a proposition. Every proposition is a sentence composed of as many words as are sufficient to render it intelligible; it conveys (whether true or false is immaterial) some distinct affirmation: as chemistry is the science of the composition, and definite proportions of material substances: or physiology explains the natural actions of living bodies. These are two distinct propositions, and nothing more can be deduced from them, than the meaning of the words that compose them. Propositions may, like numbers, be connected together, and the construction of a volume consists of such addition; or in other words, is a series of sentences. But as from the unit one nothing can be deducted, so from one proposition, contained in a sentence, nothing can be deduced; for if any of the words constituting the proposition be deducted, it will be mutliated, and its sense rendered imperfect. It is much less difficult to exhibit specimens of reasoning, and to investigate the steps of the process, than to afford a precise definition. There is however an avidity in the human mind for definitions on important subjects: they are convenient from their concentration, and their abbreviated form enables the memory to preserve them. Perhaps reasoning may be considered "the process whereby correct inferences are deduced from existing premises," and it may be added that this process is most perfect when numbers are employed. In order to illustrate this subject, chemical analysis, when properly conducted, may be considered very pure processes of reasoning, and accord with the definition that has been attempted. A person might discover a mineral substance in considerable quantity on his estate, and we will suppose him sufficiently instructed in chemistry to investigate its composition: for if he were altogether ignorant of this science, he could not possess that knowledge which is the requisite basis for his reasoning on its contents; and which has been stated an indispensable condition. By certain re-agents he would ascertain that it contained silver. This would constitute the *premises.* He would next take a portion of this mineral, for instance an hundred grains, which is a definite quantity expressed by numbers, and submit it to a correct analysis, which would indicate the number of grains of silver, and also the different substances with which it was combined, and their relative proportions. The quantity of silver contained would lead him to calculate the cost of its extraction: and this would involve the computation of expense by amalgamation or smelting, also the cost of the necessary buildings, apparatus, fuel, and the price of labour. The different departments of our own profession are exemplifications of the reasoning process, according to the definition that has been exposed. Pharmaceutic analysis and compositions are an important branch of chemical science, and regulated by the precision of numbers. Surgery, both manual and curative, demands the highest exercise of reason: and if the practice of medicine be defective of that rational foundation, which an enlightened physiology and pathological discrimination can alone supply, it degenerates into blind and dangerous empiricism. The whole range of mathematical science, together with the mechanical and natural philosophy that are reared on its basis, are "the processes by which correct inferences are deduced from existing premises," and comprehend the necessary ratios, admeasurements, calculations, estimates, and proportions that are ultimately resolvable into numbers: and these sciences are the purest examples of the process of reasoning, because they admit of the unerring operation of numbers. It will be shown, in a future lecture, that the process of reasoning is one of the constituents of thought, and ought, perhaps, to be regarded as the highest effort of reflection. At least reason is the most important auxiliary to effective thought, and when it does not regulate and influence, the mind can only be occupied by fleeting recollections, and interested by the caprices of fancy.

We must now quit the delightful track of physical science, to drift on the ocean of verbal generalities. The meaning of reason, as it is adapted to the phenomena of nature, and the perceptions of the senses, has been sufficiently explained; and it now remains to examine the application of reason when solely conducted by language, and follow its wanderings into the regions of abstraction. The great contentions that have agitated the minds of our species, and still continue the conflict, have not originated from the nature of things, but from the meaning of words. The disputes in physical science have been comparatively few:—sometimes, indeed, the premises have been scanty and ambiguous; at others, the inferences have been precipitate and unsanctioned; but in many instances, experiment has corrected the former, and the latter has been rectified by a more patient investigation. In those sciences that have been denominated abstract, the premises have usually consisted of general terms, which are, for the most part, of vague and conjectural meaning, and it must be evident, where these data or premises are uncertain, that the inferences will be equally erroneous or obscure. It is worthy of remark, that the great mass of mankind is more delighted in discussing the abstract points which abound in law, physic, divinity, and politics, than in the examination of subjects, where the premises are defined, and the inference is the correct calculation from acknowledged data. Even in our own profession, we are usually more interested in attempting to reason on the subtilty of contagion, on nervous fluid and influence, vitality, peculiar actions and unsoundness of mind, than with the investigation of morbid anatomy, or of that physiology which may be established by experiment. Indeed, the world swarms with disputatious moralists, theologians, political economists, and metaphysicians, while scientific chemists and natural philosophers are the "rari nantes in gurgite vasto."

When we reason solely by language, and independently of numbers, as the vehicle of precision, our premises consist of terms, that have been indifferently denominated abstract or general; and from such indefinite data, the certainty of our conclusions will be considerably abated. If we inquire into the meanings of these general terms, we shall discover that they are subject to considerable variation. If we wish to refer to any standard of authority, we shall not find it in existence: and if we consult the best writers in our language, we shall detect them employing these general terms in different senses; and it is only necessary to inspect the accredited dictionary of our language to be satisfied of the truth of this assertion. These abstract terms are usually of the highest importance, they form the basis of ethics, of law, and of the metaphysic that has hitherto prevailed: sometimes, indeed, they have constituted the sources of our hopes and happiness; but more frequently, they have furnished the catalogue of our prejudices, impeded the progression of the human intellect, and converted the smiling prospects of nature, into the hateful gloom of misery and despair. It has been attempted by another method to fix the standard of meaning, and to rivet on words that permanence of signification, which ought to distinguish these signs of our thoughts and perceptions: and this criterion has been assigned to etymology. This science proposes to trace words to their original import, to exhibit their native elements and composition; and by this test, to purify them from the corruption they have imbibed from time, and the fashion that has dictated the "norma loquendi:" to hunt them in the rubbish of antiquity, to perpetuate their ancient sense, and rectify the distortions of that self-created authority, that has deflected them from their primitive meaning. It is really desirable that the signification of important words should be fixed and inflexible: but it is scarcely to be expected that the great mass of mankind should become etymologists, and revert to those dark and neglected periods, when the Saxon Heptarchy and the Norman Conquest imposed their several dialects, and from the union of which our present language has resulted. It is however indispensably requisite, that these abstract terms should possess a definite and unequivocal meaning, and as they approach to this unvarying standard, our reasoning from them will be proportionately correct. To conclude, the adaptation of the best means for the accomplishment of our purposes is the exercise of reason: the comprehension of the premises, implies knowledge as the substratum, and the deduction of the inference is the correct calculation, estimate or *ratio*, from which the term reason has been derived: and to perform which, with the highest certainty, requires the agency of numbers. It will likewise be evident, that our reasonings by these splendid generalities and sweeping abstractions, are the sources of all the great and interminable disputes that have agitated mankind. There is no subject on which they have been more profusely bestowed, than on the nature and operations of the mind itself; and these undefined expressions and assumed principles, have mainly constituted the metaphysic that has long prevailed, and that which exists at the present period.

Imagination.

However abrupt the transition may appear from the precise and measured steps of reason, to the excursive and unbounded flights of imagination—however opposite their nature and constitution, there is still a foundation for the opinion, that the doctrine of reason, according to the explanation that has been given, will be further illustrated and confirmed, by a correct search into the composition of that attribute of the human mind, which has been termed the imagination. It will be necessary to institute an analysis of this dazzling meteor of the intellect, as it has been generally regarded its scarcest and most enviable possession; and considered the stamp of genius, the life of description, and the soul of poetry. Although moralists, metaphysicians, and the writers on taste, have variously defined and eulogised this splendid talent: it has not to my own knowledge been sedately examined, as a subject of the intellectual physiology of man. Its etymology is most obvious, and perhaps, on this account, Mr. Addison has been induced to view it exclusively as the province of the sense of sight: in which case, it would be impossible for the blind to possess this acquirement, and would exclude Homer, Milton, and other poets of more modern date, from their acknowledged claim to its possession. Neither shall we be borne out in confining its operation to the organ of vision. Music and oratory would assert their prerogatives. The solemn stillness that precedes the storm, and the loud intonations of the tempest that assail the ear, when compared to the tranquillity of the human breast, or to the boisterous sallies of rage, would be the subjects of pure imagination; and the gratifications which contact confers, bestow on the touch a higher delight than mere vision can impart. It must however be recollected that these are mere impressions, and would expire on the sense, without the communication which speech unfolds: and as we proceed in this inquiry, we shall find, that we are principally to expect a development of this attribute, through the medium of language. By the wildest hypothesis, imagination has never been attributed to the brute creation; although some animals are distinguished for the acuteness of their sight, by possessing a more distant focus, or from being more microscopic than man: but the real solution is their want of speech, for the coinings of imagination can only be issued through this medium.

In the monuments we possess of Grecian art, the human form is displayed with the utmost fidelity to nature, by the consummate skill of the artist. These are not the efforts of imagination, but the representations of fact: and when they chiselled the fictions that exhibit their deities, or the fanciful creations of their poets, as satyrs and centaurs, the elements of which these figures are compounded were individually correct, and in conformity to the mythology that existed: they were not the invention or caprices of the sculptor, but the tasteful execution of that which language had previously described. If imagination be considered a component faculty, or necessary department of the human mind, some period must be assigned for its development. There is no evidence that the infant exhibits any of its manifestations: and although in the season of childhood, and at the commencement of speech, it has been the mischievous practice of the parent or nurse, to delight the pupil with the hopes of impossible attainment, to describe an incredible exuberance of nature's bounties, to reconcile transmutations that are repugnant to the laws of nature, or to alarm the tender fabric of the intellect with the relation of evil spirits, goblins, apparitions, and the whole machinery of terror; yet the child itself breeds no such corruption. The delusions thus early impressed, usually continue through life; they constitute the foundations of our fears and prejudices, they enfeeble the mind, and stifle the natural curiosity that the child inherits, to become acquainted with the phenomena of this world; they retard his advancement in knowledge, and render him disobedient to the convictions of reason. These "horrible imaginings" are therefore not the spontaneous productions of the youthful mind, but a poison infused to beguile the credulity, and contaminate the stamina of the intellect. When we view man in the savage state, we have no inducements to consider him the creature of imagination; he is too strongly pressed by his necessities, to find leisure for the indulgencies of fancy, and he is a stranger to that elevated and chivalrous affection for the female, that calls forth the embellishments of language, that tends a grace to sentiment, and confers a dignity on feeling. In this abject condition of our species, his female associate is the mere slave of his occasional passion, and the offspring is solely protected by the instincts of its mother. Imagination is, therefore, the product of that state of civilised society, where opportunity is afforded for the cultivation of the human intellect, and where, by a generous intercourse, language imparts its ripened charm to nature, sensibility, and opinion. It has been supposed that imagination is directly opposed to reason, and if we speak of distorted images, and violations of possibility; if we revert to the tales of our childhood, to the feats of fairies, to the achievements of magicians and enchanters, and to the fictions of eastern descent; where the conditions of our nature are so happily improved, that discontented with the humble realities of this world, we soar into regions uncircumscribed by latitude, and create a new universe unshackled with the material lumber of the present; people it with a vast assemblage of adult philosophers, intuitively wise, and disdaining the tedious progression from infancy to manhood, who owe no obligations to perception, as the basis of their knowledge, and deride the maxims of experience, and whose will is attainment:—where love and opportunity are uncontrolled by time,—where beauty endures and enjoyment is permanent,—and where the gay delirium of intoxication is exempt from repentance, and a stranger to the headach. In such flights the opposition to reason is fully established, and the fabric will be found composed of "the stuff that dreams are made of," the wanderings of delirium, or the bold assumptions of insanity. It is certain, that imagination, even in its chaster garb, abjures the precise estimates, and nicer admeasurements on which reason proceeds; and employs those abstract expressions and ambitious generalities, that revolt from the accuracy and confinement of numbers. But imagination, of the purest quality, may exist without an infringement of probability, or contempt of the laws of nature. Imagination to the mind, is precisely the same attribute as the purest architecture, the most skilful contrivance and tasteful embellishments, are to a princely edifice: it is the legitimate subject of decoration and splendid ornament: but this implies the basis of science, and a conformity to the rules of art: any violation of the just proportions, the abandonment of interior convenience, or instability of foundation, would render it the object of ridicule and contempt. So imagination does not consist in a violation of the laws of nature, in repugnance to reason and perversions of thought. There are buildings solely constructed for convenient habitation, others as the repositories of merchandise, or the solid compilation where the manufacturer conducts his processes. These require strength and accommodation, and ornament would be superfluous and prejudicial. In like manner there are various subjects that do not admit of embellishments, and only require precision and perspicuity; such are title-deeds, and acts of parliament, arithmetic, works on mathematics, geography, navigation, and the whole range of natural philosophy. There are, however, many departments of literary composition, that require a more animated tone and glow of expression, than the sluggish repetition that prevails in leases and indentures. History, in order to be distinguished from the flatness of narrative that occurs in chronicles and annals, demands comprehensiveness of phrase, harmonious construction, and vigour of exposition; and the higher drama, where the energies of passion are depicted, can only produce the desired effect, by introducing such a train of imagery as shall be physiologically correct, such arrangement as is best calculated to impress, and adorned with those graces of appropriate expression, that are suited to the dignity or delicacy of the emotion.

Whenever the exuberance of fancy has assumed a prominence and distention, incompatible with the range of probability and the soundness of reason, it has merged on delusion, however picturesque and enchanting its visions may have appeared. Notwithstanding this luxuriance of fancy may be indispensable to the effusions of the orator, the vein of the poet, or the flights of the romancer, and they can only consist of verbal ornaments: it is the bane of sober demonstration and philosophic research; and therefore for the continuance of health, and for the remedy of disease, is justly expelled from every department of medical science. The scrutinising investigations of the anatomist, where the eye and hand mutually combine, to ascertain structure and position; investigations, from which the multitude turn aside with horror and disgust, and to which the medical pupil can only be reconciled by the love of science and the consciousness of duty: these loathsome and baneful labours owe no obligations to fancy. The researches of the physiologist, if they proceed on the basis of anatomy, and are pursued by accurate observation and correct experiment, will be uncontaminated by those hypotheses, that are derived from the indulgence of imagination. The art of surgery in its comprehensive signification, is throughout an example of the most delicate and erudite perceptions, maintained by self-possession, and directed by reason. To be less serious, if the language of metaphor were applied to the history of diseases, and to the practice of medicine, it would excite the utmost ridicule and contempt. We should read the cold narrative of an ague, and the sultry description of an ardent fever. The copper-coloured eruptions of secondary lues, would be termed the blushes of Venus, nor would the dignity of her crown be overlooked. Human existence would dribble away in diabetes, and the different cavities become deluged by dropsy. Too much of this figurative nosology still prevails: the claws of cancer continue to extend their ravages, and polypus maintains its footing: St. Vitus yet leads the dance of distortion. The ranula sustains the excessive temperature of the fauces, the placenta is not confined to the shop of the confectioner, and the high and low states of insanity adorn the pages of a Gulstonian lecture. Chemistry, now screwed up with mathematical precision, was once under the spell of this powerful enchanter, and in its older volumes we find that when silver was amalgamated with mercury, and this latter volatalized to obtain the residuum of the former, it was announced, " That the fair Luna melted in the embraces of the subtile and insinuating mercury; but when the torture of fire was applied, the inconstant deity flew away, and abandoned the credulous goddess to her own flame."

From the manner in which the elements of mind have been considered, and from the reasonings that have been employed, it is not unfair to conclude, that the confederations of fiction and embellishment, that under the corrections of taste, constitute imagination, are principally the business of *language*, and into which all our thoughts must be ultimately resolved, for the purpose of communication. There are some human beings, whose native capacities are of a finer staple, and enjoy a more exquisite sensibility, and whose perceptions are more distinctly impressed: whose mental vision discerns the minuter objects in nature with superior clearness, and can also contemplate her prospects in an ampler range. These favoured individuals, and they are of rare occurrence among our species, select from the copious vocabulary they have accumulated, that appropriate and emphatic phraseology, that imparts a glow to description, endows sentiment with animation, and enlists sympathy in the display of feeling. That the splendid power of imagination must likewise imply a higher excitement of the capacities, is beyond dispute: there are times when we feel a consciousness of surpassing energies—a facility of execution—a vigour and endurance of reflection—a promptitude and felicity of expression, that on other occasions we court in vain: and these are the fortunate concurrences that give birth to imagination.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE VII.

On Heat.

GENTLEMEN,—At the conclusion of the last lecture I showed you, that nothing could be more arbitrary or indefinite than to assume any given degree of temperature, as the boiling point of water. I showed you, that that phenomenon depended entirely on the degree of pressure to which the liquid might be subjected; and that under a pressure less than that of our atmosphere, it boiled at a much lower temperature than 212°; on the other hand, under increased pressure, fluids require a higher temperature to produce their ebullition, as may be seen in this apparatus. Here is a brass globe, composed of two hemispheres, strongly secured together; into its upper part a column of mercury is introduced, to which is attached a graduated scale; on the one side of this column is a stop-cock, and on the other a thermometer, communicating with the interior of the globe; the globe is half filled with hot water, and it will be seen that upon applying heat to this vessel, the stop-cock being closed as soon as the water boils, that the temperature of the water and its vapour will increase with the pressure, which is measured by the ascent of the mercury in the barometer tube. The thermometer, on the other hand, at the ordinary atmospheric pressure, being at 212°, will be raised under a pressure of five inches of the mercury to 217°, and under a pressure of thirty inches, to 242°, or thereabouts, the thermometer rising about 1° for every $\frac{37}{1000}$ of an inch of barometrical pressure. The barometer tube serves the purpose also of a safety valve, as it is not longer than sufficient to resist the pressure of two atmospheres, and the globe being more than equal to the resistance of that pressure. The experiment is here made to determine the fact, not to determine the ratio between pressure and temperature. Such then, you perceive, are the limitations with which the term boiling point is to be understood. I should state to you, that in the "Manual of Chemistry," the temperature of steam, at high pressure, is very materially understated, and the present statement, taken from Dr. Wollaston's apparatus, is correct as far as it goes.

We now come to Dr. Black's experiments, which were undertaken to determine the nature of steam. He placed a quantity of water in a vessel over a fire, and put a thermometer into the water, when he observed that it went on increasing in temperature until the water began to pass off in the state of vapour, but that it then acquired no farther increase of heat beyond that point; the heat then becomes latent, and is consumed in the formation of steam. The converse of this holds, that the condensation of the vapour gives out its latent heat, to be reduced again to water. Dr. Black found, that water at 212° passed off in a state of vapour; he then noted the time required to heat it up to that point, keeping the same degree of heat applied to the water until the whole was evaporated, and marking the time consumed by that process. He then calculated to what the temperature would have risen, supposing the increase to have gone on in the same ratio, above 212°, as it did below it, and as the temperature of the steam was the same as the temperature of the water, Dr. Black inferred that all the heat above 212° was consumed in the conversion of the water into steam. He estimated this quantity of heat at 810°; that is to say, or to put the subject in a more intelligible light, he found that the same quantity of heat which was required for the total evaporation of the water at 212°, would be sufficient to have raised the water to 810° above 212°, or to 1022°, had the water continued in its liquid state.—There are some other modes of ascertaining the latent heat of steam, which induce us to place it at about 448°. Here you observe an enormous abstraction of heat when water is converted into vapour, and that the converse is also the case. I might illustrate this by a variety of methods, but I shall take a few of the simplest. Here is a simple experiment, showing that on the condensation of steam, heat is involved. The apparatus, as you see, consists of a small boiler, into which are inserted a safety valve, a blow valve, and a pipe, which communicates with this jar of water, into which a thermometer is introduced. To give you a notion of the immensely heating power of steam, let us suppose that into the half pint of cold water now contained in this jar, we condense one ounce by weight of steam; we shall find, as you now see, that the whole will, by this means, acquire the temperature of boiling water; but if you add one ounce, by weight, of boiling water to the cold water, we should only elevate the temperature to the mean of the two fluids. Of course you can easily measure the increase of bulk which the water receives by the condensation of the steam on the sides of the vessel.

In the common process of distillation, you have another instance of the great quantity of heat required to cause the fluid in the still to pass into vapour, and of the great degree of heat again given out by its passing into the fluid form, in its progress through the warm tub. Now there are a number of liquids which boil at a much less temperature than water, under the ordinary pressure of the air-pump; but I shall not dwell upon these matters here, because they will be pointed out under a more appropriate head hereafter. Formerly, we used to let the steam pass away unemployed from breweries and other manufactories where large quantities of water are consumed; but now that its great heating power is much better understood, it is turned to better account, and the quantity of fuel very much economised. There is this advantage attending this mode of heating bodies by steam, that you can heat them up to any required degree, by using steam under a given degree of pressure; and in pharmacy, and other branches of art requiring great nicety, this is a very valuable property to obtain. We are now considering steam at high temperature, but let us consider its production at a lower temperature; and, for this purpose, let us employ water in vacuo, or a fluid that will pass readily into a state of vapour, at a low temperature. Now ether is such a body; if you pour a little ether into the palm of your hand, it soon evaporates, and the hand feels cold, that is to say, the heat of the hand is carried away by the vapour of the ether; and by suffering ether to trickle over the surface of a thin vessel containing water, so much heat will be abstracted by the evaporation, as to convert the water into ice. If you evaporate water at common temperatures, under an exhausted receiver, the consequence will be, that it will be cooled so rapidly, that the quantity of heat required to convert the one quantity of water into vapour, will be taken from the other portion, which will be converted into ice. Now here is a very simple mode of showing this, by an instrument invented by Dr. Wollaston, which he called a *cryophorus*.

It is, as you see, a glass-tube with a bulb at each extremity. One of the bulbs is about half filled with water, and a good vacuum is produced in the other, by boiling the water and sealing the tube whilst full of steam. On immersing the empty bulb in a freezing mixture, as you see here, the water soon freezes in the opposite bulb, although the tube which intervenes, is from two to three feet long. The vapour in the empty bulb is condensed by the cold, and a fresh quantity of vapour arises in succession from the water in the other, by which such a quantity of heat is abstracted from it, as to cause it to freeze. It is a very simple method, and, on the whole, a very elegant one, to show the fact in a very plain way. The theory of it appears to be just this: the cold condenses the vapour in the bulb immersed in the freezing mixture, fresh vapour is brought over to supply the vacuum formed by the condensation of the first portion, and the heat is so rapidly abstracted from the fluid water by the escape of this vapour, as so convert it into ice. The operation of wine coolers, and cooling lotions, is on the same principle, namely, the abstraction of heat from surrounding bodies, by the conversion of fluids into vapour; and hence the great advantage of sponging the skin with water in many febrile diseases, and the refreshing feeling which the sponging of the skin produces in the summer season; it is a much safer mode of cooling the body than immersion, and equally effectual.

We know nothing of the nature or cause of heat; some suppose that it is a peculiar fluid, which has been termed *caloric*, and certainly there are many phenomena in favour of the existence of this fluid. Others have described the phenomena mentioned, to a vibratory motion of the particles of matter, and that the sensible heat or temperature would increase with the velocity of the vibrations, and that increase of capacity for heat, would be produced by the motion being performed in greater space. Upon another hypothesis, *temperature* is referred to the *quantity of caloric* present, and the loss of temperature, which happens when bodies change their state, viz., in liquifaction, depends upon the chemical combination of the caloric with the solid, and in the case of conversion into the gaseous state with the liquid. I must repeat, however, that of the nature or cause of heat, we know nothing.

In many natural operations, the conversion of water into vapour, and the condensation of vapour, in the form of dew and rain, is a process of the utmost importance, and tends to the equalization of temperature over the globe. The vapour from the earth's surface having been carried into the higher regions of the air, becomes condensed in the form of snow upon the mountain tops, and other portions of vapour again descend in the form of rain and dew, to give fertility to the soil, and equalization to the temperature of the earth.

In the next Lecture we shall commence with *electricity*, and investigate some of the principal phenomena connected with the subject.

LECTURE VIII.

On Electricity.

GENTLEMEN,—We have now cursorily to describe the principal phenomena afforded by electrical action; to consider briefly its influence on the powers and properties of matter; but more particularly to examine how far it is connected with chemical changes.

Twenty-five years ago it would have been difficult to observe any connexion between electricity and chemistry, but so great have been the advances made of late in this branch of philosophy, that it is now pretty generally admitted, that not only the main phenomena evidenced in chemical action are due to it, but that there is scarcely any chemical change effected, in which electricity is not concerned. Without taking you back into the early history of electricity, I may just advert to the period when Volta observed the phenomena produced by the contact of dissimilar metals, from which may be dated the great connexion which has since been found to exist between chemistry and electricity. The history of the science may be learnt from books, but the facts cannot be shown you so well as here. What are called electrical phenomena, are easily exhibited in a variety of ways. If a piece of dry warm flannel and a piece of sealing wax be rubbed together, or a tube of glass be rubbed upon silk, they become capable of attracting and repelling light bodies; as, for example, a feather suspended by a silk, or a pith ball suspended in the same way. The phenomena afforded by electrical action are now much more easily shown than formerly, by the contrivance called the electrical machine, which is a cylinder of glass rubbed over with an amalgam of zinc and mercury spread upon silk. In these instances, the bodies mentioned are said to be electrically excited, and appear luminous when in a dark room. Now in ordinary cases we employ two small pith balls for the purpose of ascertaining the electrical state of bodies, these are suspended by a fine thread, and if they be electrified by touching them with the flannel or sealing wax, they repel each other, as you now see; but if one of the balls be touched or electrified by the wax, and the other by the flannel, they then approach each other, and are said to attract each other. The same thing happens if the balls are touched with the glass and silk, showing a difference in the electricities of the different bodies, from which we are led to conclude, that bodies *similarly* electrified *repel* each other, and that bodies *dissimilarly* electrified *attract* each other. Now when we say that certain bodies under certain electrical conditions repel and attract each other, we use the terms merely to express the appearances of the phenomena; the separation and attraction being probably owing to new relations established between them and the air, or surrounding bodies.

Now, if one ball be electrified by sealing wax rubbed by flannel, and another by silk rubbed with glass, the balls will repel each other, showing that the electricity of the silk and the sealing wax is the same. If, on the other hand, one ball be electrified by the sealing wax, and the other by the glass, they then attract each other, showing that they are oppositely electrified. Such experiments are most conveniently made with a large downy feather, suspended by a silken thread; if an excited glass tube be brought near it, it will receive and retain its electricity; it will be first attracted and then repelled, and upon re-exciting the tube, and again applying it, it will not be again attracted, but remain in a state of repulsion. Upon again approaching the excited sealing wax to the feather, it will be attracted, and remain in contact with the wax till it has acquired its electricity, when it will be repelled, and, in that state of repulsion, will be attracted by the glass. Care must be taken that the feather remains freely suspended in the air at some distance from surrounding bodies, in order that its electricity may not be carried off. To the phenomena which have just been exhibited, the terms *vitreous* and *resinous* electricity were given; but Franklin observed, that there was no difficulty in rendering bodies resinously electrified, vitreous, and *vice versa*; from which he inferred, that the electrical states of bodies did not depend upon their nature and composition, but upon other circumstances. He was, therefore, led to ascribe the electrical phenomena, not to the presence of two fluids, as before supposed, but to one fluid diffused over nature in a state of equilibrium; but that as soon as you disturbed the equilibrium of this fluid in any way—if you took away a portion of it from a body, he said that such body was then in a state of *negative* electricity, and that the body to which it was added was in a state of *positive* electricity. He supposed that when glass is rubbed with silk, a portion of electricity leaves the silk and enters the glass, which then becomes positive, and the silk negative; but when sealing wax is rubbed with flannel, the wax loses, and the flannel gains electricity, the latter being positive, and the former negative. Here then we have arrived at a knowledge of this much, that whatever may be the cause of electricity, bodies similarly electrified repel each other, and when electrified dissimilarly, they attract each other. The consequence of which is, that whenever you see bodies repelling each other, you infer that they are similarly electrified, and that when they attract each other, they are dissimilarly electrified.

Those bodies which become electrified by friction are called electrical, and here is a table arranged in such order, that the substance which precedes the other is, when rubbed with the substance following it, positive with regard to it:—

Catskin
Polished glass
Woollen cloth
Feathers
Paper
Silk
Gum lac
Rough glass

But with regard to glass, you find that, although it is highly negative in the rough state, it is positive when polished.

Upon the principle of similar bodies repelling each other, and *vice versa*, we construct instruments called *electrometers*, or *electroscopes*, to show the degree of excitation in which any body may be, and not merely to enable us to judge of the degree, but also of the electrical state of the body, whether negative or positive. One of the best electrometers is, as I have before stated, that mode by suspending two pith balls by a piece of silk; but for any delicate purposes, an instrument of this kind is employed. Here you see is a glass jar, in which two slips of gold leaf are suspended by a wire attached to the brass cap of the cylinder; the glass jar serves the purpose of preventing the two pieces of gold leaf from being agitated by the air, and seems to insulate the brass cap, whilst it enables you to see what is going on. Now if you communicate any electricity to the cap of the instrument, it is immediately conducted to the leaves suspended in the glass. I now convey an electrical charge to the cap, and you see that the leaves instantaneously diverge, and so remain. If you wish to know whether the electrical state in which the leaves are seen is positive or negative, you must approach a glass tube which has been just rubbed with silk, or a piece of sealing wax rubbed with flannel. You see that, as I approach this glass tube to the cap of the electrometer, the leaves diverge still farther, from which you are to conclude that the leaves are in a state of positive electricity. If I bring the stick of sealing wax toward the jar, you observe that the leaves begin to approach each other ; I am to conclude, therefore, that they are in an opposite electrical state to that of the sealing wax, that they are positively electrified, and then the mutual annihilation of the opposite electricities would ensue.

The delicacy of this instrument, as an electrometer, is much diminished, and is indeed rendered nearly useless when damp, which led the late Mr. Singer to make an alteration in the construction of the instrument, which may be deemed a considerable improvement. The insulation of the cap is secured by a glass tube, about four inches long and one-fourth of an inch in internal diameter, covered on the outside and inside with sealing wax, having a brass wire of about the twelfth or sixteenth of an inch thick, and five inches long, passing through its axis, so as to be perfectly free from contact with any part of the tube, in the middle of which it is fixed with a plug of silk, which keeps it concentric with the internal diameter of the tube. Various contrivances have been used as electrometers, but there is one on the table which I may mention to you as an useful instrument for ascertaining more gross states of electricity, such as the amount of the charge of the Leyden jar, and so on ; it is called the *quadrant electrometer*, and was invented by Mr. Henley. It consists, you observe, of a rounded stem of metal, to the side of which an ivory semi-circle is attached ; a pin is affixed to the centre, upon which a very thin piece of cane, or ivory, about four inches long, with a pith ball at its lower extremity, turns freely, traversing the semicircle, the lower half of which is divided into 90°, as an index. When not electrified, the index hangs parallel to the stem of the instrument, but when electrified, it is carried from it, marking the intensity of the electricity by the number of degrees it may traverse on the graduated semicircle.

Now you will perceive, that almost all our common electrical apparatus consists of glass, or resin, or some of the metals, and we use the two former in order to preserve the substance under examination in its natural or acquired electrical states. When a charge of electricity is given to this piece of metal, attached to the glass tube which I now hold in my hand, the electricity is instantly diffused over its surface, and is therefore a good *conductor*, but it does not pass along the glass to my hand. We call such substances, therefore, insulators, or *non-conductors*, because they do not transmit or diffuse the electricity, receiving it only upon the spot touched ; such are dry air, glass, sulphur, and resins, and as such substances acquire electricity by friction, they are called *electrics* ; whilst the metals, which are all good conductors, do not become electric by friction, are called *non-electrics*. You may rub a piece of metal to all eternity, and you will not make it electric, because the electricity passes off as fast as it is formed. There is no constant relation between the states of bodies and their conducting powers ; solids and fluids, in general, are sometimes conductors, sometimes non-conductors. Among the solids, metals are conductors ; resins and gums, non-conductors. Among the liquids, acid, alkaline and saline solutions are good conductors ; pure water is an imperfect conductor, and oils are non-conductors ; air is a non-conductor under ordinary circumstances, but when highly rarefied it is a good conductor, and that is the reason why, when lightning strikes a house, it frequently descends through the chimney, the rarefied air in the chimney being a good conductor.

The appearance of electric light is modified very much by the density of the medium through which it passes being brighter and whiter in proportion as the air is dense, whilst in the vacuum of the air pump it becomes paler and paler in proportion as the vacuum is perfected ; so that it would appear as if light depended upon some obstruction in the air, and that the light depended upon the compression of the air by the passage of the electricity through it.

Now there is one effect connected with these experiments of making bodies electric by friction, which is, that when one electricity is excited, the other is always in such proportion as exactly to annihilate or counterbalance it. When one body, or system of bodies, is negative, the other is invariably positive : such was Dr. Franklin's theory. When I rub this tube (holding a glass tube in the hand) with a piece of silk, I take away a portion of its electricity, which I communicate to the rubber, and if I convey these powers to a conductor, they are found to neutralise each other, and no electrical phenomena will be afterwards visible ; and this is the theory usually adopted in England. The French have taken up two theories, supposing that there are two electrical fluids; but I have assumed that of Franklin, because it appears to me to be the most simple; and as we know nothing of its nature, it is as well at present as any other.

We avail ourselves of an *electrical machine* to accumulate electricity, and to show its effects in the accumulated state. Now you will remark, that the electrical machine is nothing more than a glass cylinder or plate conveniently mounted, as you see here, with a rubber and conductors. Here is a glass cylinder turning between two upright pillars, and here are two smooth metallic conductors, nearly equal in length to the cylinder, and of about one-third its diameter, fixed upon glass pillars. One of the conductors has a cushion coated with a layer of amalgam, which is attached to it by a spring nearly as long as the cylinder, and about an inch and a half wide, to the upper part of which a flap of oil silk is sewed, which should be long enough to reach from the cushion over the upper surface of the glass cylinder. The other conductor placed in front of the cylinder is armed with numerous brass points turned toward the cylinder, and you will find that you have the electricity of the glass accumulated in the latter, which is called the positive conductor, and the electricity of the rubber in the other, which is called the negative conductor, the electricity accumulated there being negative. The pressure of the rubber against the glass is regulated by a screw, and the motion of the cylinder is in the direction of the silk flap. To put this machine into good action, every part of it should be perfectly clean and dry; the cushion should be rubbed over with amalgam, and applied by a gentle pressure to the cylinder. The best amalgam is composed of one part of tin and two of zinc melted together, and mixed while fluid with six parts of hot mercury in an iron mortar. The mixture is then triturated, till it forms a fine powder, which is then to be made into a paste with hogs' lard. Now Dr. Franklin supposed, that the electricity was drawn from the one conductor and accumulated in the other, and you see, that when these conductors are made to touch by connecting them to a brass rod, a spark is produced, which shows the annihilation of the two electricities; but if you establish a communication between the two conductors, no electrical phenomena will be exhibited by the working of the cylinder. This machine is well fitted for the exhibition of these and a number of other electrical phenomena, and is usually called Haine's Electrical Machine.

Here is another form of the electrical machine, contrived, I believe, by Dr. Engelhaus: it is a circular plate of glass mounted perpendicularly between two cushions, to which is attached an insulated glass stem, and it is convenient to varnish over the stem, because lac and resin are better conductors than the glass itself. There is an awkward accident to which these machines are liable, namely, that of cracking in their centre; but the remedy is to bore holes in different parts of the glass, and we now have such machines in use for years. If you turn the machine gently you will render the conductor positive, and it will attract a ball that may be opposed to it in the negative state, not by contact, but by proximity or *induction*, and this is universally the case, but why, we do not know. This fact was elucidated by a contrivance in which three insulated conductors, placed at a little distance from each other, the last being in communication with the earth by means of a small chain; at the extremities of each conductor two pith balls are suspended, and although at some distance from each other, they become electrified by induction, and are, as you observe, set in motion. Here therefore, we find, resumed Mr. B., that the ball opposed to the conductor of the machine being negative is attracted by it, but the moment you make it a matter of contact, you take away the attraction between the different bodies, because they are then brought into similar states of electricity. When these opposite electrical states have arrived at a certain intensity, sparks pass between the different conductors, and then the electrical phenomena cease. The *spiral luminous tube*, as it is called, exhibits this fact remarkably well: small spangles of tin foil are placed within a small distance of each other, each of which represents an insulated conductor; the first spangle being held near the charged conductor of the machine and the last in the hand, the body of the experimentor serving to keep up the communication with the earth, a series of brilliant sparks will pass through the tube, indicating the annihilation of the opposite electrical states in the numerous spangles, or insulated conductors.

Now if you consider the phenomena of the excitation of electricity, of the attraction of dissimilar bodies and of the repulsion of similar bodies, and the polarisation of bodies by induction, you will be in possession of the ground-work of the subject of electricity. I wish again to state to you, however, that our time only allows us to show the simple facts, and we must refer you to works for a more detailed account of the science.

In the next lecture we shall consider the phenomena of the Leyden jar, and show you the modes of accumulating electricity by induction.

FOREIGN DEPARTMENT.

GENERAL OBSERVATIONS ON ANEURISM.

By G. Breschet, *Chefs des Travaux Anatomiques, at the Faculty of Medicine, Paris.**

The word *aneurism*, used in too extensive a sense by some, and too limited by others, has given rise to numerous discussions and mistakes on this important branch of pathological knowledge. In fact, by this term, different morbid states of the heart and arteries have been understood. By aneurism of the heart, is generally understood dilatation of the auricles or ventricles, with or without diminution or increase of the thickness of the parietes; and the possibility of aneurism by rupture of the fleshy parietes with dilatation of the membranous coverings, has been denied. The formation of true aneurism of the arteries is not supposed to depend on a dilatation of the whole calibre of the vessel, but an alteration of the middle and internal tunics, as well as the rupture of these coats, and the existence of a tumour on the side of a vessel, by the extension of the outer membrane, in which blood is contained. Sennert, Fabricius, and Scarpa, have affirmed, that all aneurisms of the arteries are formed in this manner, and have rejected the idea of aneurism, by the dilatation of the parietes. Scarpa particularly understands by aneurism, a sacciform tumour, situated on the side of an artery, formed by the cellular or external membrane of the vessel, in consequence of a rupture of the internal diseased tunics. The essential conditions of aneurism, according to Scarpa, are, 1. The existence of a tumour on the side of the vessel, formed by the cellular tunic, in which coagulated blood is contained and arranged layer on layer. 2. An opening, in some spot of the artery, produced by the rupture of its middle and internal tunics, which, opening, leads into the cavity of the tumour. 3. A previous morbid state of the internal and middle tunics, such as their friability by ossification or their ulceration.

Scarpa's observations are correct as far as they go, for aneurismal tumours most frequently depend on a *steotomatous* alteration of the parietes of the artery; but, it is equally correct, that true aneurism also exists. In fourteen cases of aneurisms, examined by Burns, he found only one case in which the doctrine of Scarpa was invalidated.

Aneurisms of the heart by dilatation undoubtedly occur, but those by rupture of the parietes of this organ have been simply alluded to by authors, but never accucurately described. Nevertheless, according to Kreysig,* what Scarpa says of the sacciform aneurism of arteries is applicable to the heart, because this organ sometimes presents a state similar to that exhibited by the arteries affected with sacciform aneurism. Morgagni † relates a case of melicerous tumour, resembling a cherry in shape and size, the half of which was merged in the substance of the heart, whilst the other half projected externally, and contained serum. Lietaud has transmitted to us the history of a scirrhous tumour the size of a nut, found at the base of the heart, near the insertion of the pulmonary artery, and another tumour of the size of an egg, situated on the right auricle, and containing a *putrid humour*. Lastly, he speaks of an excrescence resembling a pigeon's egg, surrounded with several other smaller tumours united at their surface, and filled with a matter similar to the lees of urine. M. Kreysig, not knowing what character to assign to these tumours, and in what class to rank them, says, that they may perhaps be *true aneurisms of the heart*, since they contained decomposed blood.

In ten cases of false consecutive aneurism of the heart, mentioned by M. Breschet, the disease was situated near the apex of the left ventricle. The following are the conclusions to which he has arrived:—

1. That the heart may be affected with a disease, hitherto undescribed by medical writers.

2. That this disease appears particularly to belong to the left ventricle of the heart.

3. That the apex of this organ is the most frequent seat of this complaint.

4. That this affection is an aneurismal tumour.

5. That this aneurism, from the mode of its formation, the condition of its parietes, and the parts contained in the cyst, may be classed with the false consecutive aneurism of the arteries, in the sense given by Scarpa, to the word *aneurism*.

6. That the heart is subject to the same kind of aneurism, as that with which arteries are usually affected.

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* Repertoire Generale d'Anatomie. Tom. iii. p. 366.

* Die Krankheiten des Herzen systematish bearbeitet und durch eigene Beobachtung erlautert Von D. Fried. Ludwig Kreysig Zweiter Theil, p. 377. Berlin, 1815.

† Decans. et sedib. morbor. epist. xxi art. 4.

SKETCHES
OF THE
MEDICAL SCHOOLS OF SCOTLAND.
No. VII.

GRADUATION.

"Paulo majora canamus."

The second of August, eighteen hundred and twenty-seven, will be celebtated by the future historian of the University of Edinburgh, as one of the most memorable epochs in its annals. The student of centuries hence, as he turns to the record of this festival, may sigh that he had not been born in the more glorious days of his deserted alma mater; and his contemporary professor, while gloating over the description of so rich a harvest of fees, drop a tear on the page in compassion for the degeneracy of his own times and his beggarly account of empty benches. I had marked down this solemn fete in my sentimental journal, which I preserve apart from my case and cash book, for an earlier notice; but the more I considered the importance of the theme, the more incapable I found myself of rendering it literary justice, and like the philosopher, interrogated on the nature of the Deity, borrowed time from my own incompetency, in order to compensate for deficiency of power by prolonging the term of meditation. It is, perhaps, so much the better to have permitted the deeper impressions of the picture to soften down by procrastination; for even at this distance of time, the contemplation of the simple fact, of one hundred and sixty doctors being let loose on the world in one day, not to include the circumstances by which this awful event was accompanied, gives to one's head that dizziness communicated by a peep down Dover Cliff, at Shakspeare's samphire gatherer, or a glançe at Satan, rising in all the majesty of evil, from Milton's broad and level lake of fire; or, in short, by any of the other poetical images which have excited the "tinnitus aurium" of the true sublime in the ears of the critics.

The advent of this great day was accompanied by many extraordinary phenomena of nature and art. For several weeks previous to its arrival, the good people of the High-street were seriously alarmed by the daily appearance of a mysterious apparition, busily moving through the machinery of the musical bells of St. Giles's, which was at length, by the investigation of the police, proved to be Dr. Duncan, junior, preparing, as it has been supposed, a chime suitable to the solemnity of the occasion. The "*Scotsman*" announced that the coruscations of the aurora borealis were more frequent and brilliant than usual; and Professor Leslie, the only modern astrologer who has learned the science in the original Chaldean manner, by observing the motions of the stars, while employed in the simple character of a shepherd on the hills of Fifeshire, was seen on the observatory of the Calton, with his eye fixed in studious abstraction on the horoscope, to determine a lucky hour for the commencement of the ceremony. Mr. John Wilson, the Tanitor, and Dr. Hope, the "Dives" and "Crœsus" of the University of Edinburgh, were remarked to hold their consultations oftener, and to have been so absorbed in their meditations as not to recognise their colleagues in office. The object of these deliberations was conjectured to have been, the determination of the most appropriate place for conducting the spectacle; neither the new examination hall nor the library of the University, unfortunately being yet completed, Dr. Hope's aristocratic propensities induced him at first to suggest the propriety of celebrating the jubilee in the picture gallery of Holyrood-house, in presence of the likeness of the two hundred Scottish kings, all executed from life by one artist and from the regal physiognomy of a coal-porter, who sat for the whole; but Mr. Wilson prudently over-ruled the proposition on the plea of inconvenience. The great room of the Waterloo hotel, and the assembly rooms in George-street, held the council for some time in suspense between their respective merits; but then the notion of profaning the "summos honores medicinæ," by conferring them in the presence of waiters and chambermaids, or amid the reminiscences of reels and Neal Gow, was what Dr. Hope's ideas of the dignity of the medical character could not endure. In this dilemma it was finally resolved, that as he was to act as master of the ceremonies, he would find himself more at his ease, more in short at home, in the chemical theatre. Accordingly, stills and stoves, tongs and tinder-boxes, air pumps and alembics, crucibles and conductors, funnels and fire-shovels, glass rods and gasometers, rests and retorts, were all removed; and when the sky-lights were scoured, the walls whitewashed, the benches brushed, the room certainly had the appearance of respectable renovation. There was still, however, another important question to be settled, and that was, how or where gowns were to be provided for the multitude, Mr. John Wilson being entirely unprepared in this respect, never suspecting, of course, that such a demand would have been made on his wardrobe. Fortunately the Court of Session had just terminated its sittings; the "gentlemen of the long robe" had hung up their garments for the summer vacation, and here opened a prospect of supplying the deficiency, provided there was found no legal impediment to the loan. Mr. Bell, professor of Scots law, was therefore consulted whether there was any valid objection, *de jure* or *de facto*, against the induction of candidates with the plenipotence of a doctor's degree while habited in a lawyer's gown; and having given his deliberate opinion that there was no informality in the proceeding, an immediate order was obtained from Mr. Napier, professor of conveyancing, for the trausfer of as many gowns as were necessary from Parliament-square.

During these several preparations, superintended by Mr. Wilson and Dr. Hope, the creaking of presses striking off theses, was (the wind favouring) distinctly audible on the top of Arthur's seat; while below, nothing was to be seen but the authors—

> "With fire in each eye, and papers in each hand."

And here commenced my own humble part in the drama; for Scotus of course being honoured with the personal frendship of the whole hundred and sixty inceptive candidates, he had first to receive a copy from each, with the "author's compliments," his "sincere esteem," his "affectionate respects," tortured, in short, into every form of phrase which affection or affectation could possibly invent. The trouble of presentation might have been borne, but, *horresco referens*, to read them all was really a serious undertaking, which however I got through, praising the author of one for the happiness of his motto, another for his excellent research, a third for the purity of his latinity, and so on with the rest, but invariably summing up the criticism, by stating that the one under consideration was the very best thesis which appeared this session; and in this I cannot accuse myself, however paradoxical the assertion may seem, of violating truth, for a jury of Bentleys or Scaligers could not decide between their respective merits. One thesis, indeed, there was, which deserves to be pointed out as an exception to the latter observation, on account of the spirit and sarcastic humour displayed by the writer in the selection of a motto. It was an essay composed, if I recollect rightly, on the anatomy of the eye, and dedicated, I presume, by permission, to Mr. Dick Martin, the animal philanthropist, by his witty and accomplished cousin, Mr. Martin Forsyth. While other aspirants after classical celebrity were draining Horace to the dregs for a new quotation, or enlisted Drs. Hawley and Milligan in that laudable pursuit, Mr. Martin Forsyth's "eye" saw its object at a cheaper price in the pages of the Latin Grammar, and by the alchemy peculiar to genius, which ennobles the humblest themes, compounded from this simple source, and with the assistance of an extract from John Bee's dictionary of fashionable literature, vulgarly called slang, the following elegant macaronic distich, which I copy verbatim from the title page of Mr. Martin Forsyth's dissertation on the eye:—

> "Nom. hic occulus, gen. hujus occuli, dat. huic occulo,"
> "And its all in my 'Eye,' Betty Martin, O!"

Unfortunately, universities have been as often the persecutors, as the patrons of juvenile genius; and this spark of Hibernian wit would most certainly have kindled the flame of vengeance against the classical scoffer at the dignity of the faculty of medicine, if, at the time the offence had been detected, his degree had not been already engrossed on a ten pound stamp, which was rather too much to throw away on the chastisement of a mortal pun.

Having read and impartially criticised the theses for their respective authors, I was the better prepared for attending to the next act of the representation, the ceremony of "impugning," a relic still preserved from the wreck of monastic education. The occurrence sent me back in imagination, to the times when the luminaries of the "dark ages" contended with each other in Latin for the length of a day; and when the day, too short for the determination of the contest, was prolonged by adjournment into weeks and even months of dubious disputation—when to decide how many angels might dance a strathspey on the point of a needle, was deemed the sublimest investigation which could occupy the human mind, and the most urgent incentive to the display of scholastic eloquence—when logical prize-fighters, armed at all points with the Aristotelian philosophy, perambulated the earth like the knights of chivalry, in search of rhetorical adventure, and challenging whole universities to the field of learned contention—when a Buchanan and a Creichton astonished the nations by their omniscience and extemporaneous effusions, or a Lope de Vega could improvise an epic poem before dinner—when, in short, kings whiled away their leisure hours, by witnessing the deadly conflicts of these logical desperadoes, who maimed each other after the most scientific system of argumentative attack and defence, as the Roman emperors amused themselves with the battles of wild beasts in the amphitheatres of Rome. I did not expect to see the custom of public disputation followed up to so alarming an extent, or producing any mortal consequences to the parties, in these "piping times of peace;" but I could not have supposed, that where so much of the form had been preserved, that the spirit had entirely evaporated. I had not been long a spectator of the scene, when I was convinced how much the balance of decorum and ingenuity was in favour of the modern art of scholastic warfare, and how much more suitable the gay pageant of a review must have been to the feelings and capacities of the belligerents before me, than the barbarous combats and fierce ratiocination of ancient times, when disputants died of defeat. Nothing indeed could be more unlike the physiognomical preliminaries of a contest, than the composed features of the parties, the professors having entered adorned in their sweetest smiles, which were returned by the glances of their opponents on the benches, as peaceful and conciliatory. The venerable chieftain, Dr. Duncan, senior, supported on his right by Dr. Graham, and on the left by Dr. Allison, opened the day by challenging a gay spruce cavalier opposite to him, to account for a certain passage in his thesis; but the martial call being scarcely audible beyond the space that separated them, the youthful respondent hesitated, doubted, and after a moment of hurried reflection, concentrated his classical energies, and returned the assault in the profound enunciation of an "imo domine." The aged warrior "of a hundred battles" sunk back in his chair, satisfied with the response; while Dr. Graham, next bending the bow of Ulysses, rose and winged another interrogatory at the head of another opponent, which was parried by a similar answer. Thus question and answer chased each other down for many hours, the contest eliciting nothing in the shape of a reply more learned than a "certe" or an "imo;" or of approbation stronger, than the measured applause of a "recte dixisti." Deeply impressed with admiration at a display of concentrated phrase, which Lycurgus himself, in his deepest rage of condensing the conversation of his Spartans into monosyllables, might in vain attempt to rival; and a simplicity of colloquial fluency, which set the powers of old Corderius at defiance, I departed from the scene to ponder on the glories of to-morrow, a day which was to determine the fate of so many of his Majesty's subjects, without the last sad consolation of a coroner's inquest. Refreshed by genial slumbers after their arduous labours of the preceding day, the multitude poured into the chemical theatre at an early hour from the hundred vomitaries of the medical barracks of Lothian-street. I wish, for the satisfaction of my readers, that I could here convert my pen into a graver, to give them a more accurate idea of the assemblage by a diagrammatic etching, than can be communicated by words alone. At the bottom of this vast amphitheatre, however, which extends from the ceiling to the floor, and, raised on a platform, sat the seven professors of medicine, forming a sort of arch, with the very Rev. Principal Baird in the centre, who certainly made a most substantial key-stone. On the next half dozen of benches opposite, were arranged the candidates for the "cap;" and above them, again, to the very last row, a miscellaneous multitude of both sexes, the ladies' white plumes, green veils, and leghorns, giving a sublime undulatory motion to the living mass. The seven wise men of Greece could scarcely have looked more grave and demure than the seven Professors, though I fancied I could now and then discover, through the assumed placidity of their countenance, as they threw up an occasional sly glance at the dense array of inceptive graduates, something of that secret satisfaction with which the husbandman beholds, after his toils, his hill side waving with a luxuriant harvest. The very Rev. Principal Baird undoubtedly became his exalted place, being obviously formed for the centre of any assembly in which he might be cast; his ample rotundity and solid expanse of face and feature, proclaimed him at once the patriarch of a crowd, which seemed but an emanation from the exuberance of his person; and had I not known him to have been a meek and humble follower of the austere discipline of Knox, I would be inclined to have set him down for the corpulent possessor of a substantial bishopric, being manifestly intended by Nature for an episcopalian. The hilarity of the candidates added of course to the harmonious expression of the general picture, save and except where one of them, who had been celebrating the festivity of the times overnight at a graduation supper, now and then marred the universal gaiety of the scene, by a deep yawn for a bottle of ginger beer or soda water; and, to say the truth, I never saw the baillie's daughters look to more advantage, between whom and Dr. Hope, I thought I could perceive some stronger feeling to have existed than the mere sympathy excited by a distant recognition. The sentimental communication between them, of whatever character it might have been, was now interrupted by the very Rev. Principal, who rose and repeated with a solemn emphasis, and in a deep tone of voice, a beautiful paraphrase in Latin on the Lord's Prayer, in which every one present appeared to me to have most devoutly joined, except Dr. Hope, who, standing out of the line of his coadjutors, fixed his eyes on the speaker with a degree of stern intensity, as if he would look through his very soul. Various explanations of this phenomenon presented themselves to my mind at the moment, such as the ladies, the clergyman, matrimony, all which coincidences might at the time have struck on the imagination of the professor of chemistry; but no, all these surmises were wrong, he was only awaiting the final amen, which was the signal for him to commence his Latin oration; and no sooner was the orison concluded, than the learned professor, with an aristocratic stride, advanced to the desk, threw open his manuscript, and wheeling round with more than wonted pomposity, bowed, and addressed the Principal and the audience. Being considered the most accomplished classical scholar of the medical faculty of the University, his discourse naturally excited much attention. Its style certainly evinced a familiar acquaintance with the idiomatic peculiarities of Sallust, and the patavinities of Livy; but it is not so easy to decide on the merit of its matter, for it is difficult to determine what should constitute the substance of those holiday orations, which seldom have any important object to give them an interest, or their authors sufficient genius to conceal by its creations, the general insanity of their themes. On this account it is, perhaps, that all our Hunterian, Harveian, Croonian, and the Lord knows what orations besides, are almost invariably failures. Dr. Hope's sagacity, at least, taught him the folly of encountering these difficulties; and instead of aspiring to the perfection of genius, and labouring with a sterile subject, he very prudently took himself for his model, and made up his discourse by translating passages from his introductory and concluding address to the course of chemistry, with a few scraps, perhaps, from Dr. Duncan's late papers on medical education. The University, as every body knows, is a legitimate object of praise; it was accordingly applauded. The profession of medicine is, and ought to be, a very respectable way of keeping body and soul together; its dignity was, of course, asserted and inculcated. Its practitioners should be extremely studious and careful of the lives of their patients: they were very properly exhorted to incessant application, and admonished particularly not to poison any one by the grammatical inaccuracies of their prescriptions. But among these most profound sentiments of the composition, the one which seemed to have affected Dr. Duncan, junior, most sensibly, was that in which the speaker, with an emphasis suitable to the sublime thought, announced that there were no less than one hundred and sixty candidates present to receive the degree of doctor of medicine. Joy for a moment made his features the seat of its revels; an involuntary spasm of self-satisfaction contracted his shoulders into a cunning shrug; his hand instinctively rose to his brow, as if to shade the intensity of the emotion from view; but the expression of triumph as suddenly subsided into a melancholy smile; the feeling passed sympathetically to his colleagues; and to the generality of the spectators, the whole seemed as if the unwelcome thought had crossed their minds, that the hour of the tide's rising to its greatest height must be also that of the commencement of its ebb.

Their anticipations, whether of good or evil, were soon disturbed by other business. Dr. Hope having concluded one half of his oration to the manifest pleasure of the fair patronesses of the University, Dr. Duncan, junior, rose and read aloud the oath of fidelity to the graduates, calling on each to hold up his right hand, and to advance severally to the platform for the registry of their vows by the subscription of their names, which he repeated as each passed on before the Rev. Principal, to receive from his hands the final act in the process, the imposition of the velvet cap on their heads. Deeply interesting as this part of the ceremony must have been, exhibiting as it did the affecting rite of Medicine receiving the consummation of its powers at the hands of Religion, its frequent repetition might, perhaps, have made it seem tedious, had not, fortunately, its solemn monotony been relieved by the episode of an Irish fantasia. After calling over a variety of names, Dr. Duncan, junior, redoubled his nearly exhausted vocal powers, and, in a tone of voice prophetic of some extraordinary event, ejaculated, "PATRICIUS MURPHY," from the very depths of his chest. The announcement of the patronymic of Ireland, acted like a shock of electricity on the nerves of the audience; and all eyes were instantly strained to the point from whence the nominal representative of the "Emerald Isle" was expected. Mr. Paddy Murphy from *Mullanahone*, in his own dear county of *Kark*, was'nt *wan* jiffey *shure* enough in making his appearance on the stage, embodying in the confusion of his movements the aboriginal wildness of his features, and the devil-may-care eccentricity of his costume, the moral and political distraction of his native land. Habited in a lawyer's gown, (a judge's, I should suppose, from its capacious folds,) which hung in disorder from one of his shoulders for some yards behind him, and a three-bottomed horse-hair wig (another loan from the bench, I presume,) turned a little to one side from its centre of gravity, and shedding a plentiful shower of levigated chalk down his back at every motion, Mr. Patrick Murphy, whose primeval features proclaimed him an indisputable descendant of the Celtiberian colony of Kerry, rushed across the platform with a *faigha ballach* defiance of gait, turning all etiquette and Scotland out of his heels in the rapidity of his boisterous transit. Dr. Duncan stared—Dr. Graham was all but petrified—Dr. Allison endeavoured to look serious—the Rev. Principal, as the personification of Ireland, strode by him, receded in deferential awe—Dr. Monro, awakened from a profound sleep, rubbed his eyes, and wondered what it was all about—the ladies cast an imploring look for protection, against the incursion of the *Eerish* Caliban, down to their friend Dr. Hope, who, with a desperate presence of mind, caught the fugitive by the skirts, and amidst a peal of laughter from the whole spectators, brought him back to have the velvet cap approximated to the wig, when, with another plunge, its possessor buried its honours among the crowd.

With the exception of the adventure of the wig, for which we were indebted to the jocose advice of some of Mr. Murphy's countrymen, to revive the ancient costume on the occasion, the remainder of the ceremony passed off without any occurrence of sufficient importance to deserve observation. The rest of the candidates were, on the restoration of order, doctorated; Dr. Hope concluded his oration in a murmur of applause; the Rev. Principal dissolved the vast concourse, who were never to meet again, in the words of peace and benediction; the late pupils, proud of their new honours, and the professors contented with their profits, congratulated each other in a heartfelt round of shaking hands on their mutual feelings and possessions; I stood silent and alone to contemplate the phases of an interesting scene in the drama of life; and as the thought of the diversified destinies of so many youthful friends who were on the point of parting, and never to be re-united on this side the grave, crossed my mind, Mr. Murphy and his wig vanished from my imagination, and I felt for the moment half inclined to be serious. In this state of sentimental neutrality, I was descending into the court-yard of the University, when my musings were dissipated by the appearance of some ill-looking fellows, their faces gnarled into so many fac-similies of a "subpœna," and obviously some low retainers of the law. They skulked in the adjacent piazzas and corridors, with an assumed, but suspicious air of indifference; and were accompanied by a scattered retinue of swindled tailors, bilked shoemakers, defrauded genteel widows dressed in black, the proprietresses of lodging-houses, and what smote me to the heart, a few pretty little victims of the Lotharios of Lothian-street, all watching their prey, e'er the evening mails bore them away for ever from their grasp. For the snippers of broad cloth and calf-skin I had little compassion, and they may measure their loss on their next customers.

It is now, perhaps, too late to tack a moral to my tale—to remedy a defect of design, which should, in the process of its execution, have gradually developed its object; and if there were not inquisitive beings in the world, who might demand the *cui bono* of the preceding narrative, I should be tempted to let it pass on, with the hope that the candid, at least, might discover its true import, without troubling them with unnecessary help of an explanation. The simple answer to such a question then is, should it be proposed, that the ceremonies described, no longer preserving their original spirit, or fulfilling the ends for which they were instituted, are now useless, expensive, and of an immoral tendency. The practice of exacting theses, which are seldom composed by their nominal authors, merely subjects students to the unnecessary trouble of first purchasing the manuscripts, and next, of paying for the printing of documents, a moiety of which is ultimately consumed in Dr. Hope's furnace. The most devoted admirers of antiquated usages, must admit the folly of "impugning" compositions which have never been written by the respondents; but the extreme absurdity of such a proceeding must be still more obvious when it is known, that while the mock solemnity of an examination is going forward, the degrees of the examinates are actually in the hands of the college scrivener. To complete these inconsistencies, and to comply with these inoperative institutes, pupils are detained three months in Edinburgh after the termination of the session, during which period, being set free from all restraint, they commit more excesses, and incur more expenses, than during the entire six preceding months of their studies.

Scotus.

Edinburgh, Oct. 27, 1827.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Nov. 3.

Dr. Somerville in the Chair.

The President informed the Society, that he had, during the week, received a communication from Mr. Lambert, who, owing to a severe domestic calamity, was prevented from having the honour of reading his paper on the diseases of the testicle that evening, but that Dr. Gregory, with his usual anxiety for their welfare, had very handsomely, and at a short notice, undertaken to offer a few observations on the subject of malaria.

Dr. Gregory rose to state, that the remarks which he was going to make, were intended rather to have the effect of eliciting information on this interesting subject, than to convey to the Society any novel opinions. He would commence with the doctrines of Hippocrates, though he by no means intended to follow those of every author since the time of the Father of Physic. Hippocrates was aware that fevers of different kinds could be produced by certain states and changes of the atmosphere, which were principally the variations from dryness to moisture, and from heat to cold; but he seemed to have had no definite knowledge of the propagation of fever from certain terrestrial effluviæ, which have been denominated malaria. Lancisi, who flourished at Rome about the year 1700, was the first who had distinctly pointed out the influence of malaria. Dr. Fergusson, of Windsor, in a paper published in the Edinburgh Medical and Surgical Journal, had taken very extensive and ingenious views of the subject. He (Dr. Gregory) considered malaria to be of two kinds, that which arose from the decomposition of vegetable matters, or, in other words, terrestrial effluviæ, and which gave origin to intermittent fevers, and that which was derived from animal exhalation, and which produced continued fever. He did not mean to assert, that continued fever could never arise from marsh miasmata, for he had known one or two instances, but the statement which he had just made was in general the correct one. Dr. M'Culloch was the person who had made the greatest inroad on the propriety of this doctrine. Of late, malaria had been supposed to give origin to many other diseases besides fever, thus dysentery, cholera, and even goitre itself, had been ascribed to its influence, but these were merely the silly opinions of the day. One great object in his rising, was to direct the attention of the Society to the treatment of intermittent fever, to inquire how far the use of bark had been beneficial, and what were the comparative powers of the sulphate of quinine. He had within the last few days had an opportunity of visiting a large manufactory of sulphate of quinine, on Snow-hill, and from which, during the last eight months, London had received its principal supply of that drug. He wished to find out from any of the members, how far it differed from the French, which, previous to this time, had been generally used in this country. It was a curious circumstance, that the species of bark, which formerly was supposed to have the greatest powers in curing intermittent fever, affords only a very minute quantity of the salt.

Dr. Johnson expected, when Dr. Gregory rose, that he would have afforded them some information concerning the composition and action of malaria, instead of entering on its history. He rather thought, from what he recollected, that Dr. Gregory was wrong, in supposing Hippocrates to be ignorant of the existence of malaria; but as he had not looked *into him* for a considerable time, although he had *him* lying about him, he could not be certain. But the bad effects of malaria were well known long before the time of Lancisi. Dr. M'Culloch had quoted a passage from Pliny, in which that author had recommended those of the Romans who had country seats in the vicinity of marshy grounds, to sell them to those who did not know their bad qualities. The original views on this subject, which Dr. Gregory ascribed to Dr. Fergusson, were not justly to be attributed to him, but on the contrary, to Dr. Hibbert.

Dr. A. T. Thomson spoke at considerable length as to the impropriety of employing the term "malaria," which conveyed the meaning, that a chemical change existed in the composition of the atmosphere, when the nicest chemist had been unable to detect any variation. He thought, that without a certain state of the constitution, malaria could not exert a pernicious effect, and related to the Society the case of Dr. Gregory, the author of the "Physician's Guide," and the father of the late celebrated professor in Edinburgh, who, when a student in a part of Germany where malaria prevailed, and who, from being a philosopher, and living low, drinking only water, was seized with intermittent fever, when his jolly companions, who ate and drank freely, escaped. He thought that there was a great connexion between the state of moisture and the production of malaria, and was of opinion, that the occurrence of rheumatism, from damp, which, in nine cases out of ten, assumes an intermittent form, corroborated his views.

Dr. Milligan could not see any connexion between malaria and moisture. It was well known that intermittent fever did not prevail when the Nile had overflowed its banks and the neighbouring country, but after it had begun to recede. He related some curious facts which had come under his observation in the Mauritius, where persons living at the summit of a high rock, near which no malaria existed, had become affected with intermittent fever. It had been supposed that malaria had been carried from India by the currents of the atmosphere. In some cases he had found the powder of bark to be more effectual in the cure of intermittent fever, than the sulphate of quinine.

Dr. WEBSTER could not agree with Dr. Thomson in the statement which he had made as to the connexion between the state of moisture and the existence of malaria. He had lived a long time in Rome, had crossed the Pontine marshes several times, and had himself been affected with intermittent fever, and consequently had paid a vast deal of attention to the subject. After he had crossed the Pontine marshes two or three times without being affected with intermittent fever, he thought that his constitution was callous to their influence, and on his last visit he had incautiously fallen asleep. He was immediately attacked with the disease in a severe form. Intermittent fever prevailed most in Italy during the months of August and September, at a season when not a drop of rain fell, and when scarcely a cloud was visible for weeks before, so that it was impossible to conceive malaria to have any connexion with the state of moisture. He considered malaria to operate by causing debility. This opinion was corroborated by the fact, that if brandy or other stimulants were taken previous to exposure to it, intermittent fever was generally prevented.

Dr. THOMSON explained, that he did not mean to state that intermittent fever arose from moisture, or that malaria and that stage of the atmosphere were similar, and he attempted to show in what they differed, but we were altogether unable to comprehend his views. He had seen the manufactory alluded to by Dr. Gregory, and he could bear testimony to the truth of what he had stated concerning it. He thought that a similar establishment in South America would turn out to any enterprising individual a profitable concern.

Dr. JOHNSON could not conceive that any change, or a particular state, of the atmosphere could produce intermittent fever. He had been in a fleet which contained forty thousand men, and which was moored near the banks of the Scheldt, close to an army, the soldiers of which were dying in thousands, and yet, though the sailors were absolutely so near that they could speak to those on shore, not one of them was attacked with the disease. A similar occurrence had taken place in Batavia.

Dr. SHIEL was astonished that no one had mentioned the work of Dr. Clark on this subject. He had lately had an opportunity of visiting Professor Tommasini, who had informed him, that he found the powder of bark to be much more efficacious than any of its preparations.—After some desultory remarks from Dr. Barry, and after it was announced from the Chair that the latter gentleman would at the next meeting read a paper on the subject of "Internal Aneurism," the Society adjourned.

LONDON MEDICAL SOCIETY.

Monday, November 5.

Dr. HASLAM in the Chair.

DR. SHEARMAN commenced the discussion this evening, by inquiring of the members of the Society, the result of their experience with the use of ammoniacal injections in cases of suppressed menstruation.

Mr. ILIFF related the particulars of a case at present under his care: the patient, a girl 16 years of age, has never menstruated; she has had, for several months, severe pain in the head and back, and once a month, with these symptoms much increased, she has also bleeding from the nose. The girl being of a plethoric habit, Mr. Iliff has thought proper to abstract blood, by opening a vein in the foot: he wished to learn if this were a case in which ammoniacal injections should be used?

Mr. WALLER objected to the use of ammoniacal injections, believing that suppression of the menses was seldom dependent on the state of the uterus alone, but was rather attributable to constitutional causes, to which it was consequently necessary to direct attention. Mr. Waller then read a paper on a peculiar state of excessive nervous irritability, occurring in the puerperal state. Mr. Waller defined the disease as consisting in a highly *excited*, or rather *excitable* state of the brain and nervous system. The patient complains of constant uneasiness in the head, seldom amounting to violent pain; if left to herself she wanders, but can readily be roused, so as to give rational answers. In one of the best marked cases which Mr. Waller has met with, the patient complained of a feeling of constriction within the head, and all the senses except that of touch were painfully acute, There is uniformly great heat about the scalp, but the face and eyes have not the turgid appearance seen in the more acute affections of the brain: the countenance is anxious, but pale; the tongue moist, slightly discoloured, and having a creamy appearance; the surface of the body is often moist, the pulse is hurried, beating from 120 to 130 in a minute, and readily excited under mental agitation. If the patient falls into a sleep, she is not refreshed, but wakes with frightful and harassing dreams. In the first case which occurred to Mr. Waller, he was (to use his own expression) "puzzled;" he treated it with purgatives, and the case ended fatally. In the second case, at which Dr. Blundell attended in consultation, antiphlogistic measures were had recourse to in a moderate degree; but under this treatment the patient evidently got worse, and upon being called to her one night, Mr. Waller found her with a feeble pulse of 124 in a minute, with a pallid countenance, subsultus of the muscles of the lower extremities, and a quivering of the muscles of the face; in fact, the patient had a moribund appearance. It being evident that she was sinking, although the action of the heart and arteries had increased, it occurred to Mr. Waller, that if he could by any means lower the action without lowering the power, or in other words, lessen the frequency without diminishing the force of the circulation, the desired object would be obtained. With this view it was determined, with the concurrence of Dr. Blundell, to put the patient fully and completely under the influence of opium; *three grains* were given every hour, for six hours, and the effect was most striking: the pulse lost its irritable character, becoming full and round, and falling to 92. In the evening, another dose of opium was given, and a sudorific draught, consisting of liq. ammon. acet. and mist. camph. ordered to be taken every four hours. The patient slept all night, and nearly the whole of the following day, and from that period had no relapse.

Mr. Waller further stated, that he had since seen many cases of a similar nature, which he had successfully treated by the exhibition of opium. In addition to this he remarked, that it is useful to apply an evaporating lotion to the head; that great caution was necessary in acting upon the bowels, for as they partake of the general irritability, the symptoms are much aggravated if the patient be purged. Hence the necessity of distinguishing this irritability from that produced by an accumulation of fæces in the bowels; in the latter affection, there is more decided pain in the head; the tongue is much discoloured and loaded; there is also generally a little pain experienced if firm pressure be made on the abdomen, and the skin has not that soft and yielding feel which it has in the former affection.

Mr. Proctor wished to know, why Mr. Waller called this a peculiar affection of the brain. In the puerperal state, there was always a tendency to irritation about the head; and the symptoms which Mr. Waller had enumerated, were not uncommon after the loss of large quantities of blood. He, Mr. Proctor, was also at a loss to know what ill effects could result in these cases from the bowels being acted upon.

Mr. Waller replied, that his first patient was freely purged, and she sunk soon afterwards; and that in the second case, only two tea-spoonfuls of castor-oil were given, and they acted violently. He considered purging but a secondary consideration.

Mr. Langstaff inquired, whether the brain had been examined after death, in any of Mr. Waller's cases, to which Mr. Waller replied in the affirmative, stating, that in the first case which he had said proved fatal, the vessels of the brain were turgid, and there was slight effusion in the ventricles. Mr. Langstaff wished to learn if the uterus had been examined, as he knew that inflammation of this organ, and the formation of matter in the veins, would occasion severe cerebral symptoms.

Mr. Waller rejoined, that nothing morbid was detected in the uterus; in one case it seemed paler than natural. To an inquiry, whether the train of symptoms described, was invariably consecutive to the great loss of the blood, Mr. Waller replied in the negative. No further discussion took place on this subject, but Mr. Iliff's case was reverted to, and some comments made upon the practice of bleeding from the foot, to which Mr. Iliff pleaded "usuage and ancient custom."

Mr. Proctor made some judicious remarks on the two opposite states of the system, in cases of suppressed menstruation, the one being benefited by tonics, the other by blood-letting.

A long, rambling, and exceedingly tiresome debate now ensued, on the use of sulphate of zinc, administered internally in cases of gleet; and upon this disease generally, Mr. Callaway, Dr. Williams, Mr. Lloyd, and several other members, took a part in the debate, but nothing particularly worthy of record was elicited.

[It gives us much pain to observe, that some proceedings took place in the course of the evening, which are at variance with every proper feeling of decorum, and if repeated, will necessarily bring contempt on the Society. The debating-room of a Medical Society is not exactly the place for *Bacchanalian* pranks. Dr. Haslam's situation as Chairman was exceedingly painful, but we scarcely need say, that he discharged his duty with the urbanity of a gentleman, although compelled, in his official capacity, to notice proceedings, at once disorderly and disgraceful.]

The following particulars of Mr. Iliff's interesting case of paraplegia, were omitted in our report of Oct. 13th:—Page 57, tenth line from the top of second column, after cathartic mixture, &c. *read,* "2. P.M. A little improved with respect to mental distress; pulse 80, character natural; bowels not yet acted upon. Mr. Callaway thought the sensibility of the lower extremities rather improved. 10. P. M. Pulse 80; skin nearly of its natural temperature; no headach; countenance much like health. When the catheter was introduced, about a teaspoonful of muco-purulent fluid first passed through it; the urine after, was but slightly clouded; has had a slight watery stool; flatus has been frequently expelled, and the tension of the abdomen, (which had in the morning been more than usual) was certainly less; the ammonia was discontinued."

Monday 10. Has passed a very restless night, principally referrible to the domestic arrangements not being quite to his satisfaction. On my visit, I found he had had a little sleep since his breakfast, and was much refreshed by it. He has had a slight headach during the night, but now is free from it; skin moist; pulse good; tongue moist; and had urine dribble from him; and upon an effort being made, several drops passed out of the urethra. Bowels not yet acted upon; two spots observable on the hip, assuming rather an unpleasant character; the urine contained about two tablespoonfuls of thick muco-purulent matter; ordered a colocynth clyster to be given him."

It ought then to read, " 4. P. M." instead of " September 18th, 4. P. M." After the words, "the right hip showing a disposition to slough," it should read, " Tuesday 11th, 10. A. M. Has had at intervals about four hours sleep during night; the urine has dribbled away in such quantities, that upon introducing the catheter, only a small quantity of thick viscid fluid, of a sanious character, escaped. The bowels had acted during the night; and according to the nurse's statement, a very fair fæculent stool had involuntarily passed away; pulse about 80; countenance quiet; skin moist; a slight disposition to hiccup; he had vomited the black dose, and wished for a Sedlitz powder, which was allowed him. Half past 10. P.M. The bladder had become emptied by the gradual dribbling of the urine; had felt oppressed with flatus, which produced something like hiccup; and a little of the sp. ætheris comp. was given him, which afforded relief; has taken beef-tea several times in the course of the day; bowels not opened since the morning; countenance rather more anxious; the pupil readily contracted upon the approach of a candle; pulse 94; point of tongue rather dry; wished for another Sedlitz powder, which was allowed, and some sp. æth. c. tr. hyoscyami, &c. ordered to be given him in the night, should the spasmodic affection return; the spots on the hips rather improved in appearance; he stated his inclination to sleep to be considerable, but yet felt doubtful if he should get rest; less consciousness of his distressing situation has existed, than I think naturally might have been expected; this I have generally found unfavourable."

In the same report, for " *Mr. Winder*," read " Mr. WINSTONE."

SMALL POX.

To the Editor of THE LANCET.

SIR,—I have been pleased to observe your readiness upon all occasions to reprobate any mean or dishonourable conduct in the members of the medical profession, and that your efforts have been uniformly directed to render the practice of it more worthy a liberal and enlightened age. But I am led more particularly to these remarks by the gratification I felt in reading your just censures in THE LANCET of the 14th of July last, on the conduct of an individual who has been endeavouring to keep alive, by inoculation, that bane of society, small pox. You will, I doubt not, feel equally indignant to learn that two surgeons have been adopting the same wanton practice in the town of ——, and have thus been the means, through subsequent contagion, of depriving several of their fellow-beings of life! These men, not having families or relations around them, are lost to all the tender ties which children impart, and which make the anxious parent dread the approach of so direful a disease. As no casual case of small pox had occurred in the town for many months, I believe I may say for years, they could not have had the plea for introducing it to prevent its spreading in the natural way; no: their motives were of a more selfish character; actuated by pecuniary considerations, regardless of conseqences!—One of these men too, not content with the paltry gains which that town would afford him, carried the scourge to a neighbouring village, till the timely interference of several intelligent inhabitants of that place prevented the farther operation of his disgraceful object. I will leave you to judge of the character of this self-appointed surgeon, by his suffering a poor man to remain six days with strangulated hernia, and then packed him off to a hospital, where he was operated on, and died the following day.

I remain, Sir,

Your constant reader and well-wisher,

VERAX.

November 1, 1827.

THE LANCET.

London, Saturday, November 10, 1827.

The scarcity of subjects in the various anatomical schools of this metropolis, is matter of deep regret, both with teachers and with students. Even at the enormous prices now demanded by the resurrection-men, an exceedingly small supply only can be obtained. In many instances the teachers themselves pay double as much as they charge the students, whilst, in other schools, the pupils have to discharge the full amount of the sum demanded. Lecturers and students being thus circumstanced, the cultivation of the science of anatomy is lamentably retarded; and if those who are desirous of becoming acquainted with this single foundation of medical knowledge, are to be opposed and worried by so many obstacles and annoyances, it would not be surprising if they altogether abandon the pursuit. All the grievances of which the profession and the public have so much cause to complain, relative to this and a vast number of other evils connected with medical matters, may be traced to the supineness, imbecility, illiberality, or dishonesty, of the rulers of our precious College. Without having taken a single step to procure for our dissecting-rooms a legal supply of bodies, they have enacted a " regulation," which compels the student, before he can obtain an examination, to produce a " certificate" of having attended lectures on anatomy, and of having performed two or more courses of dissections *in London*; and even a certificate of *two years* attendance on the surgical practice of the largest provincial hospital of the kingdom, is not received by the worthy court of examiners, unless accompanied with a certificate of the candidate having attended *two courses* of lectures on anatomy, and accomplished two courses of dissections *in London* PREVIOUSLY to the commencement of such attendance on provincial hospital practice. We have already shown on several occasions, that this regulation amounts to a PROSCRIPTION of certificates from the surgeons of country hospitals, a fact of itself sufficient to show the hardihood and injustice of those who framed such a " regulation:" but when it is recollected, that its authors not only attempted to compel pupils to attend lectures and dissections in London, and positively refused to receive certificates of attendance on the lectures and practice of provincial surgeons *on any* conditions; —when it is further recollected, that these regulation-makers, at least seven or eight of the dirty TEN, were themselves *London Hospital surgeons*, and the remainder participating in the fees paid to those hospitals; —when it is further recollected, that at the very moment this regulation was adopted, no subjects could be procured for dissection in London, and that the *nominal* surgeons of our hospitals were not, for the greater part superior in scientific attainments to as many old apple-women;—when it is further recollected, that at the time of passing this regulation, no clinical lectures were delivered in the London Hospitals, no books of cases kept, no notices of operations posted, no post mortem examinations publicly made, and the pupils treated with as much contempt as a herd of swine;—when it is further recollected, that several of the notorious TEN, were, at the very time of framing this regulation, employed in bartering the rights of others, to secure a tainted income to themselves and relatives, were engaged in projecting plots and " bonds," to secure the most profitable places in the *London shop* of SURGERY, to their cousins, godsons, nephews, and "infant anatomists;"—in a word, when it is recollected, that the mercenary TEN endeavoured by this " regulation," to compel the whole of the English surgical students to purchase their professional knowledge at *one shop*—a shop stored with nothing but tinsel and *dummies*, and *that* shop their own: we can find no language sufficiently strong to express our indignation—detestation, of such profligate baseness and injustice. Neither can we adequately express our sorrow at beholding such individuals still at the head of affairs, in an institution which, from its peculiar local advantages, would probably, if honourably and liberally governed, confer greater benefit on the country, and on mankind in general, than any other of a similar nature in the known world. As well might a wrecked mariner appeal for deliverance to the huge and unsightly whale, as the members of the medical profession, to that dark abode of ignorance, prejudice, and avarice, the College of Surgeons, at the present crisis. No measure of relief, or even a show of assistance, can be expected from that quarter. Judging from past circumstances, if the College move at all, there can be little doubt that the weight of its influence will be thrown into the scale of the enemies of liberality and reform. Indeed, it cannot be concealed, that a great proportion of the difficulties the profession has to contend against have emanated from the blundering manufactory in Lincoln's Inn Fields. Laying avarice aside, would any, but the most stupid dolts, have hit upon the notable expedient of compelling people to make their purchases at *one shop*, with a view to afford them a better and cheaper supply of the materials to be purchased. Do these wiseacres believe, that if the people of England were compelled to purchase all their mutton at Weyhill, or all their wheat at Salisbury, that they would get a more liberal supply, or that either would be better? Do they imagine that the people would be further benefited, if the breeders of the sheep were compelled to produce "certificates," that the animals had eaten no grass except that of *Wiltshire*, and if the owners of the wheat were compelled to produce "certificates" of its having been grown exclusively on the soil of *Hampshire*? Yet this absurd and monstrous prohibitory principle has the College endeavoured to enforce in the field of science, and to an extent not a fraction less preposterous than in the instances here adduced. In one case the merchant, acting under a dread of the penalties of a vile prohibitory law, would say, "Truly your wheat is remarkably plump, full, and weighty, it is just the thing I want, and I deem the price moderate; of course you have a 'certificate' that it was grown in Hampshire?" "I can furnish you with no such document," replies the farmer, "because it is the produce of another county; surely it matters not where it was grown, you see that the quality is excellent, and I can sell it to you at a much cheaper rate than my neighbours of Hampshire, because I pay less rent for the land, and less wages to the labourer." "Very true," replies the merchant, "but I am compelled by a peculiar law of my company to purchase *Hampshire* wheat, and although yours may be better and cheaper, yet the company would not 'recognise' it as 'sound' without a 'certificate.'" Just so with the gentry of Lincoln's Inn Fields, they "recognise" no knowledge unless purchased, and at a pretty dear rate too, at one of *their shops*; they must and will have the "certificate;" without it the most brilliant attainments are rejected with contumely, and the industrious and accomplished student is spurned from the portals of their temple. It is useless for the astonished pupil to declare that he has dissected during five or six seasons in Paris; that he had at all times a plentiful supply of subjects in that capital; that they cost him only from three to six francs each; that he went to Paris because he could procure *no subjects in London*, and that when he left the dissecting rooms here, they were empty. In reply, he hears of nothing from *nine* of the TEN but "Certificate! Certificate!" muttered with sullen and cold-blooded avarice, whilst the tenth ejaculates "*The bond, the* *bond*,—must take care of the INFANT ANATOMIST!" Can such an iniquitous system as this continue? It cannot; and the moment the Legislature becomes fully acquainted with its disgraceful workings, a single act of the United Parliament will blast it for ever.

The conduct of the College towards Mr BENNETT, one of its own Members, is a foul stain upon its character, which years of virtuous deeds cannot efface. Mr. Bennett, a British subject, lectured in Paris to a numerous class of English students, was amply supplied with subjects, and a teacher of acknowledged excellence, yet the "sound chirurgicals," the generous and disinterested legislators of our College, not only refused to "recognise" the "certificates" of Mr. BENNETT, but interfered with Mr. Canning, who at that time was Foreign Secretary, to prevent the English Embassador at Paris from affording protection to Mr. Bennett's school, when threatened by the French authorities, in consequence of some disturbance that had taken place between the French and English students. Consequently, Mr. Bennett* was obliged to quit Paris, and that gentleman's present residence in London, is the only occurrence within our knowledge, that is directly or indirectly calculated to benefit the profession, of which this Institution has been the cause. From this statement, it is evident that no effectual remedy can be found in Lincoln's Inn Fields, for any professional disease. The members of the College must keep their eyes steadily directed to a more respectable, to a more influential quarter, to persons who have not only the power, but the inclination to afford redress,—who have no temptation to act otherwise than uprightly, because their interests are not opposed to those of the profession, or of the public at large. We entertain little doubt, that the present CHARTER will be abrogated during the ensuing session of Parliament, and that the rights of the members will be placed on an enlarged and more liberal basis. Meanwhile, the members of the College, and medical students, should not remain insensible to the advantages they might derive from an early application to the Legislature, for the removal of obstacles and disabilities over which the College has no *legal* control, and the most grievous of which is, the difficulty of procuring subjects for dissection; or if procured, the penal risks under which they are obtained. On former occasions we have stated, that upwards of a thousand bodies for the dissecting-rooms might be obtained annually in London and its environs, without eliciting an expression of disapprobation from a single individual, at a cost of from four to eight shillings each. We repeat that statement. To secure this ample supply of subjects, it is only necessary to obtain an Act of Parliament for the removal of all *unclaimed* bodies to a general receiving house, from the hospitals, and other public institutions. From this receiving house, which of course ought to be kept at the expense of the schools, the subjects could be supplied to the different classes, in proportion to their numbers;

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* On this gentleman's arrival in London, we were unacquainted with his merits, and the cruel treatment he had experienced from the College. A suggestion was, at that time, thrown out by Dr. Armstrong, that the profession should make Mr. Bennett's case their own, and try the question with the College in one of our courts of law; we deemed this an exceedingly hazardous experiment, as it was reducing the grievances of all the members of the College to an individual case, and our claims to redress, would thus have been thrown on the shoulders of one person, and that person a stranger, of whose merits or demerits the majority of the profession, like ourselves, were altogether unacquainted; accordingly, we spoke of Mr. Bennett as an "exotic," and warned the profession against the adoption of the proposed measure. We deem this explanation due to Mr. Bennett, because it has been imagined that it conveyed an intentional slight of his attainments—we entertained no such object.

and the Legislature requiring, under the infliction of a penalty in case of non-compliance, that all the parts of each body, not retained as specimens of anatomy, morbid or natural, should be interred according to the usual formalities and rites of the church. At the same time, the governors of the Royal Hospitals, and other public institutions, should be interdicted from exacting "bonds" from the relatives of patients, as security for burial in case of death; a practice, were it not for the existence of which, scores of bodies might be annually consigned to the dissecting-room, without creating a murmur. We throw out these suggestions for the consideration of the members of the College, as well as for medical students, who, indeed, are the most deeply interested; and we feel firmly persuaded, that if a petition, founded on the principle of these propositions, numerously signed by practitioners and pupils, were to be presented to the legislature, praying for such an act, that it would be obtained without difficulty, and probably without opposition.

If some alteration of the existing laws be not speedily effected, human dissections must be abandoned, as few medical men will be found sufficiently bold to hazard the consequences of exposure. Mr. Cooke, of whose persecution we have so repeatedly spoken,* has been compelled to leave Exeter, owing to the ignorant prejudices of its inhabitants; and within these few days we have seen in the Liverpool Advertiser, that Mr. Gill, a highly intelligent surgeon of that place, has been held to bail in heavy sureties, in consequence of a dead body, partly dissected, having been found on his premises.

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* A letter from this gentleman to the subscribers will appear in our next.

THE YELLOW JOURNAL.

The approach of winter has exerted a sensibly depressing effect, even on the frigid compositions of "The Yellow," which we really believed had already sunk to the lowest degree in the scale of the literary thermometer. One case alone, which, from being certainly of an unprecedented kind, and from having called forth, in a wonderful manner, the *romantic* imagination of an Earle, demands, at our hands, a little consideration, and has saved the whole from that silent contempt and pity, with which, however painful to the generous mind, we should have regarded the weak, though convulsive efforts of the servile "Yellow," in its dying agonies. Often as it has been our duty to review the sickly pages of this jaundiced Journal, we never felt more inclined, than on the present melancholy occasion, to stretch out to it the hand of mercy, since it appears to be fast nearing that bourn, when it will be entitled to claim exemption from all critical remarks, and shield itself under the law,

De mortuis nil nisi bonum.

First in the ranks of "The Yellow" appears Dr. Gregory, with an "original paper" on "Constitutional Inaptitude to Cow-pox;" i. e. he has given very ancient and common place opinions and doctrines, under the barbarous title "Constitutional Inaptitude," which hath the important signification, that in certain constitutions, even although the poor victim be punctured and lacerated in different places, yet the inoculation may not be effected; and that even should vesicles form, they may die away, without producing the wished-for result. This "inaptitude" the Doctor conceives may be either temporary, or it may last for life; novel opinions, certainly; and which, as they agree with the experience of all old wives, who have existed previously to the time of our author, may now be received as established facts!

Dr. Gregory, among his other *great discoveries*, informs us that, during the existence of certain forms of disease, and particularly inflammations of the mucous membranes, the matter will not take effect, and, in proof of this *original* statement, he has had the good luck to meet with a family of South Sea Islanders, whose cases are, doubtless, calculated to make a very great impression on the profession. Should the Doctor continue his train of original reasoning and induction, he has, we think, a fair chance of turning out a second Jenner, and of being as expert in the discovery of "constitutional inaptitude" as of himself, in all medical societies, and places of public resort.

Voluminous as have been the works on the subject of hernia, the number of "singular varieties" and "extraordinary" operations which have been divulged during the present year, prove them to be eminently defective. To supply this important desideratum, the efforts of "The Yellow" have been unremittingly directed, and, accordingly, the present Number contains a case with some *speculations*, calculated to show the *propriety* of laying open the intestinal tube in cases of enteritis, in like manner, as it proved in a former Number, by the recital of the celebrated case of Ann Magan, the necessity of performing the Cæsarian section for prolapsus ani!

These two new operations have been founded on different views of the anatomical structure of the abdomen, and hence with much justice have been denominated Brodie's and Earle's *plans* of cutting for rupture. Their success, however, has been equal, and no signs of the herniæ now exist, unless it be in the occasional appearance of two unearthly visitants, with their bowels hanging down to their knees, who are to be observed at the hour of mignight, perambulating the scene of their mortal sufferings.

Our readers, in the previous Number of The Lancet, will find a full and accurate detail of the last extraordinary operation, which in "The Yellow" is wrapped up in as much nonsense and flummery as a blunderer ever invented to conceal the wanderings of his judgment. We shall, however, take the statements of Mr. Earle himself, and even with them we shall have little difficulty of convicting him of unwarrantable and unscientific proceedings.

The propriety of Mr. Earle's cutting through the integuments of the hernial tumour, no one who considers the symptoms, would, we think, call in question; but when he discovered his error, and that no portion of the gut was strangulated, his reasons for slitting it up, which are couched in the most ambiguous and wretched language, are in the highest degree futile and absurb. After stating that the gut was much *thickened*, but not inflamed, he proceeds:—

> "This circumstance, coupled with the foreign body which was felt within the cœcum, led me to suppose that a portion of small intestine had been protruded through the valve of the colon, forming a case of introsusception within the hernia. With a view to further reduce the tension of the tumour, I punctured the gut with a small trocar, and drew off a small quantity of dirty-coloured fluid and flatus; still the great bulk of the swelling remained but little diminished."

With the view, therefore, merely of reducing the tumour, and after, too, he had come to the conclusion that an introsusception existed, he conceived himself justified in running a trocar into the patient's colon! The next judicious step which he took was the following:—

> "An incision of an inch and a half long was made through the gut: the coats were greatly thickened, but nót inflamed. On cutting through the peritoneal and muscular coats, the mucous coat protruded through the incision to a large extent. On opening this, and introducing my finger, I was able to trace the continuity of the gut upwards through the ring, in the course of the ascending colon. The cavity of the tumour was filled with numerous folds of thickened mucous membrane, to which I could not find any opening, except at one spot where a circular opening could be felt, but so small

as to lead me to suppose it to be the entrance to the processus vermiformis."

We have, we confess, heard of surgeons laying open the abdomen with the view of extending the gut in cases of introsusception, but Mr. Earle is the first who has actually slit open the colon with that view. Why, we ask, did he not first attempt to stretch the gut before he cut it open? If an introsusception did exist, would not that operation have answered? And if no disease of the kind was present, which really was the fact, where was the necessity of laying open the colon, and thus wilfully establishing an artificial anus, one of the most disgusting maladies with which human nature can be affected?

But Mr. Earle mistook the case altogether, for it turned out to be, as the dissection afterwards proved, inflammation and thickening of the mucous membrane, which gave rise to the feeling of " the firm elastic body distinguished in the cavity of the sac." After these *tremendous* proceedings, the reader will hardly be surprised to find, that the poor patient was put to bed in the following awful condition :—

" The patient was now so much exhausted, and the case presented so hopeless an aspect, that I did not consider it right to persevere in any attempts to restore the introsuscepted gut. He was accordingly removed to bed, with a large mass of intestine exposed, having an opening at the lower part, through which some flatus passed. His pulse was exceedingly feeble, countenance pallid, and his extremities cold."

On this case of enteritis, complicated with an old hernial tumour, Mr. Earle, with a surpassing degree of humility, " ventures to offer the following explanation : "—

" The valve of the colon was much prolonged into the cavity of the cœcum, and its aperture was diminished in consequence of the thickening of its parietes. The cœcum and colon were so much extended in consequence of their firm attachments to the diseased cellular membrane and its great volume, that the natural cavity of these scera was nearly obliterated ; the under surface of the bowel being pressed up, so as greatly to diminish the calibre of the gut, and to keep the thickened mucous surfaces nearly in contact. Such being the state of the gut, a very little increased pressure would be sufficient to compress the sides of the elongated valve together, and to form a complete stoppage to the passage of the contents of the small intestines."

And of the operation he thus speaks :—

" The urgent symptoms of strangulation which existed when the patient was admitted into the hospital, and his repeated declaration that it had suddenly increased in volume during the exertion of sneezing and coughing, imperiously called for an operation. Having commenced it, and exposed a large surface of intestine, and not having found any recently protruded portion, or any sufficient cause to explain the nature of the constipation, it became necessary to investigate more narrowly that portion which was exposed, and this led to the supposition of an introsusception through the valve of the colon ; a supposition which was strengthened by the examination after the opening had been made, and which was not wholly disproved by the complete exposure of the parts after death."

Such are the particulars of the new " singular variety of hernia," the discovery of which will entitle Mr. Earle to a wreath of laurel from Jemmy Johnson, not less thick than that with which he surrounded the brows of Brodie, for slitting up Ann Magan's abdomen, in a case of prolapsus ani, and entitle him to a place on the page of history, next only to the *glandular* Jeffries!

Mr. Charles Mayo, of Norwich, has related a case of a tumour, situated over the parietal bone, in which he tied the common carotid artery for its cure. Editor Roderick, with considerable generalship, has placed the account of this immediately previous to Mr. Earle's case, in order that the reader might be led on, step by step, from one useless operation to another. Perhaps the best account of this tumour, is contained in the detail of the dissection :—

" On trying to raise the right anterior and middle lobes from the basis, I found the brain adherent to the dura mater, &c.: when peeled off, the pia mater and substance of the brain appeared to have been absorbed by the pressure of the tumour, which now presented itself, passing through the squamous portion of the temporal and lower part of the parietal bones, and occupying the temporal fossa of the sphenoid bone within the cranium, but closely covered by the dura mater: some small hard tubercles projected from its surface. The bulk of the tumour, projecting externally, equalled in size the two closed fists, extending upon the os frontis and backwards to the occipital bone, pushing the ear downwards, forwards, and outwards, to a considerable extent: the whole mass I should think weighed more then two pounds; it did not appear to have any particular connexion with the parotid gland, but extended to the glenoid cavity, and penetrated into the spheno-maxillary sinus, and into the cells of the ethmoid and sphenoid bones, opening into the nose, which accounts for the occasional epistaxis to which the patient had latterly been subject. The zygomatic process was in a great measure absorbed. On slicing off the external part of the tumour, it appeared to be of a uniform consistence, and much firmer than at an earlier period of its growth, so that it might now perhaps be more properly compared to the pancreatic sarcoma than the medullary."

In a late very liberal, sound, and gentleman-like speech, delivered by President Mayo at the Westminster Society, he had the excellent taste, the great good judgment, to designate an operation of Mr. Wardrop's, in which that gentleman tied the carotid artery for aneurism of its temporal branches, a *gratuitous* one. We are at a loss to conceive, what term he would find sufficiently hard to apply to this, where, in truth, there was not the least use for the hazardous operation; but perhaps his jealousy and ire would be considerably modified by the circumstance, that when the patient died, the " nece spicimin" was sent to the Windmill Street shop, where, at the next annual sale, it will, doubtless, fetch a very handsome price.

From the manner in which Mr. North relates a case of catalepsy, an ignorant person might be tempted to believe, that such a thing did not occur more than once in a century. The features of the disease were the following:—

" In consequence of the removal of the patient to the house of a friend who resided in my neighbourhood, I was sent for to see her on the 30th of March. My attendance was requested as speedily as possible, as she was supposed to be in a dying state. I found her in bed, and apparently in a profound sleep. She had just fallen into this state after a violent fit of hysterics. Not the slightest motion could be observed in any part of her body. No pulsation at the wrist could be felt. The action of the heart was so extremely feeble, that it was distingushed with difficulty; and no motion whatever could either be seen or felt in the carotids. The pupil of each eye was contracted to a very minute point. The temperature of the body was below its natural degree. A glass was held before her mouth, but no vapour could be detected on its surface. Her respiration was not perceptible, for the chest appeared as perfectly free from motion as the other parts of the body. Various stimuli had been applied without effect. I remained with her about an hour, and perceived that she drew a deep but gentle inspiration about every ten minutes, and that there was an occasional slight trembling motion of the eyelids."

Besides these " originals," we must not omit to mention Mr. Andrews' common place case of retention of urine, and some observations of Mr. Guthrie, showing the good effects of the chloruret of lime in purulent disease of the conjunctiva, otherwise the labours of these great pathologists would, in all probability, never come before the public eye, but be for ever concealed among the ruins of " The Yellow."

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HOSPITAL OF SURGERY,

Panton Square, St. James's.

CASE OF ENORMOUS OVARIAN TUMOUR.—INTERESTING POST MORTEM EXAMINATION.

MARY ———, Oct. 20, of a scrofulous, delicate habit of body. In the beginning of January last, after having been copiously bled for a supposed aneurism of the heart, she first perceived a small hard tumour in the left groin, which was attended with no pain, and indeed scarcely attracted her attention. This however gradually increased in size, and as it became larger, produced severe pains, extending through the pelvic cavity. In June, it had attained a very considerable size, and produced a swelling of the abdomen, apparent to every observer. Her general health became affected, she lost flesh and strength, and had œdema pedum.—At this period she consulted Mr. Wardrop, who, as she did not wish to become a patient in the hospital, has visited her occasionally with her medical attendant, Mr. Blackstone, of Camdentown, till the period of her death. Notwithstanding the employment of every means usual in such complaints, the tumour gradually and rapidly increased. She was, latterly, attacked several times with inflammation of the peritoneum, which rendered the abstraction of blood necessary. This, however, had the unavoidable effect of greatly reducing her strength; and, two months ago, a collection of fluid had taken place in the abdomen.—From this accumulation of disease, and worn out by the repeated attacks of peritoneal inflammation, she at length died on the 24th of October.

Dissection.—On laying the abdomen freely open, a tumour was seen occupying the whole cavity of the pelvis and part of the abdomen, extending from the sacrum to above the umbilicus, and completely filling up the intermediate space. This tumour, whose surface was covered by a serous envelope, was considerably broader above than below. Its superior surface was uneven, but not ulcerated, and was studded with several large formations resembling hydatids in an inspissated state, while at its base there projected an ulcerated mass, exactly resembling cineritious matter, and having the appearance of fungus hæmatodes.

At the lower and anterior part, the swelling adhered strongly to the broad ligament of the uterus, and to the Fallopian tube—but not a vestige of the left ovary remained. At other points, it had no attachments, except where it was in contact with the sacral vertebræ.—The uterus was small and sound, although containing a quantity of a viscid glairy fluid.—The right ovary was slightly enlarged and very much indurated, but had no connexion with the tumour. In the peritoneum, reflected over the uterus and bladder, there was a great congeries of large tubercular bodies, in various stages of development, but none of them, in this situation, had the appearance of hydatids, such as have been described as existing at the superior margin of the foreign mass.

On cutting through the tumour, it was found to be composed of various structures: inferiorly, of soft cineritious matter, contained in large cells; in the centre of a substance resembling blood; superiorly, of a harder fleshy structure, intersected with thick cellular membrane; and around its margin, it was formed of a green matter, resembling lymph.—Besides this general appearance, on more minute examination there were observable many small cysts, containing a curdy matter, interspersed throughout the whole mass. On cutting out this enormous tumour, it was found to be 31 inches in circumference.

By prosecuting the dissection, the pancreas was discovered to be greatly enlarged, and converted into a substance resembling in appearance the ovarian tumour, while a vast number of the mesenteric glands were increased in size, and composed of soft cineritious materials.

The peritoneum at several parts was of a deep black colour, and the omentum was evidently in a melanotic condition, containing in its structure, a black matter which could be easily washed away. The mucous membrane of the vagina, uterus and intestines was slightly vascular.

The occurence of hydatids and tubercles in different stages in the same diseased structure as happened in this tumour, is one of rather a rare occurrence. It appears to be highly confirmatory of the opinions advanced by Baron and Jenner, as to the origin and development of tubercles.

CASE OF PERINÆAL FISTULA.

The subsequent case exhibits a striking instance of the bad effects of the too frequent employment of bougies for the cure of stricture of the urethra, particularly when the mucous membrane is in an inflamed state.

B. B., ætat. 40. The greater portion of his perinæum is in a very diseased state, being much inflamed, thickened, and indurated, with several extensive sinuses, which discharge a large quantity of purulent matter, running in every direction. He complains of difficulty and frequency of micturition. The urine is discharged in a very small stream from the urethra, a large quantity of it passing by one of the openings in the perinæum, and occasionally, particularly after intoxication, scarcely a drop flows from the natural outlet. He suffers also from a distressing sense of heat and scalding of the urethra, from which there is a continual and copious discharge of pus. His complaints are attended at times with considerable constitutional derangement, and the discharge of urine from the false openings is productive of much uneasiness, as well as inconvenience to him. He states that he has been repeatedly affected with gonorrhœa, and has used a variety of astringent injections. Five years ago he experienced a great difficulty in passing his urine, and at this time he applied to a surgeon, who discovered a stricture, and used the bougie. But being unable to attend him, he fabricated for himself an instrument, composed of whalebone and covered with leather, which he introduced into the urethra every second night, and used considerable force in passing it through what he considered to be the constriction. After these attempts, there was invariably a great discharge of blood, and he experienced for a considerable time afterwards a severe degree of pain. Notwithstanding these bad consequences, he continued the use of the whalebone instrument for some weeks, when he was attacked by a violent inflammation in the perinæum, which was speedily followed by the formation of abscesses, and on the discharge of these, the urinary fistulæ, which now exist, were established.

On his admission a bougie was passed down, to ascertain the state of the urethra, a contraction was felt about an inch anterior to the bulb, but not such as to obstruct to any extent the discharge of the urine.

The treatment adopted, has been to diminish as much as possible the over-excited mucous membrane of the urethra, and to allay the inflammation of the perinæum. With this view, general and local blood-letting have been freely employed, and the introduction of any instrument has of course been altogether avoided.

ST. THOMAS'S HOSPITAL.

CASE OF RUPTURE OF THE INTESTINE.

W. Hart, 15 years of age, was admitted into Isaac's Ward on the 31st of October, about noon, and placed under the care of Mr. Green, on account of severe injury to the abdomen. It appeared that the accident had occurred from the boy's falling off the mast of a ship into the hold, where he struck against some ballast, or, as it was subsequently said, fell with his body across a bar of iron.

When admitted into the hospital, there was excessive pain in the abdomen, and tenderness upon pressure, especially on each side of the navel; the pulse was small and quick, the countenance was particularly marked with an anxious expression; the lips were pallid, and surface of the body cold.—Warmth having been applied, in the course of two hours considerable reaction had taken place, and, in consequence, blood was abstracted from the arm to the amount of twelve ounces: during the blood-letting the patient vomited a considerable quantity of a greenish fluid. In the course of the afternoon and evening he vomited several times, but upon the whole appeared to be somewhat better. He partook of some milk, and also of some tea.

November 1st.—*Noon.* The patient has passed an exceedingly restless night; the pulse is small, sharp, and almost innumerably rapid; the countenance is indicative of distress in a most remarkable degree; there is great pain in the belly, and exquisite tenderness on pressure, with occasional vomiting. The breathing is performed with great difficulty, and it is singular in its kind; the inspirations are very short and rapid, and the chest in consequence is not fully dilated. The diaphragm is almost motionless, so that as it does not pass downward in the usual manner, and propel the abdominal contents, the pain in these parts is not aggravated. Mr. Tyrrell directed thirty leeches to be applied to the abdomen, with the subsequent use of fomentations; *three grains of calomel,* with *one third of a grain of opium,* to be given every four hours, and a colocynth enema to be administered immediately.

These measures were adopted, and the enema acted slightly, but the patient gradually got worse, and died between three and four o'clock in the afternoon, about twenty-eight hours after his admission into the hospital. He was perfectly sensible throughout the whole time, although suffering the greatest possible agony, and he said very emphatically on more than one occasion, "I am sure my paunch is broken."—The body was inspected, and evidences were found of the most intense inflammation having prevailed throughout the whole of the abdomen; the different convolutions of the intestines were agglutinated by lymph, and the peritoneum of the parietes was in a like degree covered with lymph. However, the grand source of mischief was found at the commencement of the jejunum, in which there was an opening of about the size of a shilling; but it is a curious and important fact that the wounded intestine had become adherent to the omentum, at the seat of injury, so that nature had evidently commenced a reparative process, and this probably within a few hours after the receipt of the injury, when general peritoneal inflammation was set up, and proved rapidly destructive.

ST. BARTHOLOMEW'S HOSPITAL.

POLYPOUS GROWTH FROM THE UTERUS.

We give this case as fairly characteristic of the degree of difficulty that now and then occurs, in deciding between inversion of the uterus, and polypous growth from the cervix of that organ.

S. S., æt. 48, was sent from the country by a medical gentleman, from the supposition that she had inversion of the uterus, and recommended to the care of Mr. Stanley. The history obtained from her was as follows: after the delivery of her last child, there was a perpetual discharge from the vagina; this, at first, was leucorrhœal, but it gradually degenerated into a bloody sanies. For several weeks she was treated for common leucorrhœa. No advantage resulting therefrom, an examination, per vaginam, was proposed. This was assented to, and the medical attendant discovered what he supposed to be inversion of the uterus; whereupon, she was sent to town with a recommendation to the care of Mr. Stanley. She procured lodgings, we believe, somewhere in Clerkenwell, and became Mr. Stanley's patient. He hardly knew what to make of the case, and requested Mr. Birch to see it, in conjunction with him. That gentleman frankly acknowledged that, at first, it puzzled him. The tumour was *sensitive*, and occasioned much pain when rudely handled. Polypous growths generally are *insensible*. He inquired minutely into the *quantity* and *character* of the discharge, from time to time. It had gradually increased from the commencement, and, at present, was considerable. Its appearance had altered from the common leucorrhœal discharge, to the resemblance of blood. This inclined him to the belief of its being polypus, but the *sensitiveness* of the tumour made him hesitate in giving such an opinion. By main force, (quite as much as was warrantable,) Mr. Birch succeeded in carrying his finger to the top of the vagina. At first, the polypus and uterus appeared to be in a continuous and even surface, but ultimately the finger entered a small crevice, which enabled him to feel the edge of the os tincæ. This was conclusive. It was a polypus, qaving an attachment to nearly the whole circumference of the os tincæ. Mr. Birch at once decided, that its removal would be the only available remedy. This getting to the ears of the landlady, her only anxiety was to bundle out the poor woman as quickly as possible. No operation being practicable under such circumstances, she was sent by Mr. Stanley to St. Bartholomew's Hospital, and intrusted to the care of Mr. Earle. This gentleman was rather doubtful as to the nature of the case. He consulted with Mr. Birch respecting it, and the latter gentleman gave it as his decided opinion, that it was no other than a polypous growth from the uterus, and that its removal was imperiously called for. Mr. Earle, we know not why, did not seem to heed this good advice. She continued for days in the Hospital, without *anything* being done. The drainage from the system was so great, that her life was placed in imminent danger. About two in the morning, on the 6th, the house-surgeon, Mr. Warry, was called to her. She was apparently dying. The polypus had descended to the os externum. Conceiving that he should effect what ought to have been done days ago, Mr. Warry immediately passed a ligature around the neck of the polypus, and detached it with a scalpel. Eighty minims of laudanum were administered in a little warm wine, a few minutes after. In the course of an hour she rallied, but continued excessively debilitated for several days, though she ultimately recovered.

This woman unquestionably owes the preservation of her life to the decision of the house-surgeon, Mr. Warry.

CASE OF SUPPOSED HERNIA AT GUY'S.

To the Editor of The Lancet.

Sir,—Having in the last week's Number of The Lancet read an account of an operation in a case of supposed femoral hernia by Mr. Key, I will venture to make one remark which I think you will not, in justice to the operator, object to publish. It is evident that your reporter had not arrived in the theatre till after Mr. Key had given his opinion, which, as it tends to place the whole in a widely different point of view from that in which it has been represented, should be made known to your readers. It was to the following effect.—That from the account of the tumour given by the patient he had been induced to think it to be a case of femoral hernia, but that since the man had been brought into the theatre, and placed upon the table, he was disposed to alter his opinion, and to consider the nature of the case as very doubtful, "*at all events,*" he said, "*it is not a well marked case.*"

Knowing it to be your wish at all times to give to the professional public correct and impartial statements, I offer no apology for troubling you, but remain, Sir,

Your obedient servant,
Spectator.

GUY'S HOSPITAL.

WOUND OF THE ULNAR ARTERY NEAR TO THE WRIST,

Treated by the application of ONE *Ligature only, above the Wound.*

W. L., a shoemaker, about thirty years of age, and of spare habit, came to the surgery on Tuesday morning, Sept. 18. He stated that on the preceding Thursday evening, he accidentally inflicted a severe wound in his wrist, by means of a sharp knife which he employs in his business; there was very profuse bleeding immediately succeeding the injury, and he went to a *surgeon*, who *simply* applied some lint and strips of adhesive plaster. From the time of the accident to the date of his application at the Hospital, a period of four days, profuse hæmorrhage repeatedly occurred, but the *soi-disant* surgeon, to whom he applied in the first instance, contented himself with "binding it up."!! The poor fellow, however, becoming much exhausted by the repeated bleedings, sought relief at the Hospital. On examination there was found to be an oblique wound of about half an inch in length, over the site of the ulnar artery, and immediately above the wrist. As it was evident enough from the situation of the wound and the patient's account of repeated hœmorrhages, (the blood being very florid, and jetting out,) that the ulnar artery was wounded—the dresser, a "fit and capable" man, enlarged the wound and *attempted* to tie the artery, but being somewhat dubious as to the parts, either not being able to discover the artery or not being capable of distinguishing between the artery and the nerve, *wisely* deferred the operation until the arrival of Mr. Key, and a tourniquet was put round the patient's upper arm in the interval. Shortly afterwards Mr. Key visited the patient, and, after considerable delay, succeeded in *applying one ligature only to the artery, above the point at which the vessel was wounded*, by which the bleeding was completely restrained; the wound was closed with strips of adhesive plaster, and the patient directed to keep his bed with the arm elevated and the hand in a state of pronation.

There was nothing important to remark in the daily progress of the case, except that the wound was tedious in healing; on the 18th of October, when this report was made, it had not completely cicatrised; the ligature came away on the seventh day.

This case has excited considerable interest and discussion at the Hospital from time to time, principally in reference to the *peculiar* mode of practice adopted by Mr. Key, in the application of *one ligature only* to the wounded artery.

ST. THOMAS'S HOSPITAL.

WOUND OF THE RADIAL ARTERY NEAR TO THE WRIST,

Treated by the Application of a Ligature above and below the Wound, and division of the Artery in the Interspace.

J. F., 21 years of age, was admitted into Abraham's Ward, on the 29th of October, under the care of Mr. Green, on account of hæmorrhage from a wound in the forearm, near to the wrist. The account given was that he had been employed five days previously in washing bottles, when one of them broke in his hand and occasioned a wound at the wrist, which bled very copiously. He applied at the surgery, and was seen by Mr. Travers' dresser, Mr. Ward, who informs us that he found a transverse wound of about an inch in length, over the situation of the radial artery: the bleeding was readily restrained by means of the application of a dossil of lint, and strips of adhesive plaster. On the evening of the same day, it appears the man again came to the hospital, stating that the wound had bled considerably: his expression was, that the blood "spurted out," it was checked before he visited the hospital; and when he applied there was not the slightest bleeding. However it was deemed right by Mr. Ward to remove the dressings, and examine the part with a view of detecting the wounded artery, which from the patient's description of the "spurting out" of the blood was naturally suspected to exist; but no bleeding vessel was discovered.

On his admission, the man came to the surgery to have the wound dressed. On removing the dressings a gush of blood ensued, evidently of an arterial kind; and the nature of the case now being fully apparent, the man was ordered to a ward, and a compress applied to the part until the arrival of Mr. Green. The edges of the wound were partially adherent, and a pulsatory tumour of about the size of a marble had formed at the seat of injury: the pulsations were very apparent: the hand was swollen and tender, as were also the wrist and the forearm to some extent. Mr. Green, having first applied a tourniquet to the upper arm, laid bare the radial artery, which he found punctured; he passed two ligatures beneath the artery, one above and the other below the wound, and divided the vessel in the interspace. There was very little blood lost in the performance of the operation—the wound was closed with strips of adhesive plaster, and the patient put to bed with his hand placed prone, raised upon a pillow, and rags, wet with cold lotion, applied. On the fourth day the dressings were removed, and the wound was found to be in a healthy condition: the swelling of the hand and arm had subsided. On the eighth day, when this report was concluded, the patient was in every respect doing well; the ligatures had not separated.

GUY'S HOSPITAL.

OPERATIONS.

The following operations were performed on Tuesday last: we place them in the order they occurred.

1. *Removal of a Cancerous Tumour, in a state of Ulceration, from the Mamma, by* Mr. Morgan.—The patient, in this case, is a woman of spare habit, about 50 years of age; she ceased to menstruate twelve months ago; had borne one child several years since, and suckled it, but not with the diseased breast. When admitted, which was about a week since, she was found to have an ulcer of the size of a crown-piece, situated on the outer side of the right mamma, immediately beneath the anterior fold of the axilla; it had broad, hard, and irregular edges, whilst its upper surface was covered with a brownish-coloured slough, closely adherent: it discharged a sanious, offensive matter. The skin, to some extent around the base of the ulcer, had a dark red or livid colour, and a considerable portion of the mammary gland around the sore, was very hard; there was no glandular enlargement in the axilla. The account given by the patient of the formation and progress of the disease, is this:—seven years ago she perceived a hard tumour, not larger than a pea, on the outer side of the breast, it went on gradually and slowly increasing, without being productive of any other inconvenience than occasional lancinating pain, until it attained the size of a walnut, when it remained stationary for some time. About two months before admission, it became very painful, and ulceration then commenced, which went on to the extent we have described.

The operation consisted in making two oblique elliptical incisions, so as to include the diseased mass; that is to say, a large portion of the adjacent mammary gland, as well as the part in a state of ulceration. A portion of the pectoral muscle was removed. The subclavian artery was compressed, according to Mr. Morgan's usual practice, and two vessels only were tied.

2. *Amputation of the Thigh, by* Mr. B. Cooper.—This operation was performed on a young woman labouring under extensive chronic disease of the knee joint. Two lateral flaps were formed of the muscles, by thrusting a knife through on each side of the bone, cutting downwards and outwards. We observed one fault in the subsequent part of the operation. When Mr. Cooper passed his knife around the bone, for the purpose of cutting through those parts not divided in making the flaps, the muscles not being properly held back, several cuts were made into them. We mention this apparently trivial circumstance, because it is certainly productive of increased pain to the patient, baffles the surgeon, and to say the least, has a slovenly appearance, when all this might readily be avoided, if the good old-fashioned retractor were resorted to. Nothing material occurred in the remainder of the operation; there was very free bleeding from the stump, and it was necessary to secure many vessels. The patient was much emaciated, so that the limb was very small, and the muscles, when cut into, had a pale flabby appearance.

3. *Lithotomy, by* Mr. Key.—The patient, a healthy man, ætat. 49, from the county of Northumberland, had been afflicted with the usual symptoms of stone about nine months, but had not suffered greatly. He had been in the hospital nearly a fortnight, and was prepared for the operation by the repeated exhibition of mild purgatives, so as to empty the bowels completely.

Mr. Key used his straight staff and knife as usual, and cut into the bladder with the greatest possible facility, but the operation was much delayed in the extraction of the calculus, which for a considerable length of time eluded the grasp of the forceps. The calculus was oval-shaped, flat, rough, and apparently composed of lithic acid; at least, its external part.

Mr. Key's acknowledged superior dexterity as a lithotomist, and as an operator with the knife and straight staff, may render the following statement of the result of his public practice interesting. Within five years, Mr. Key has operated upon thirty-two patients in this Hospital, for stone; and of this number has lost two cases only. In the one case, the patient was a boy, and suffered much constitutional irritation; on post mortem examination, almost the only thing observed of importance, was the presence of worms in the intestinal canal. With the second fatal case, a man, 50 years of age, there was inflammation and suppuration in the cellular tissue around the bladder, a form of disease succeeding the operation of lithotomy, which Mr. Key has the merit of having especially pointed out. In all the cases but one, Mr. Key has used the knife and straight staff—in one case he employed the gorget: the patients, as must of necessity occur in public practice, were indiscriminately taken, varying much, of course, in age as well as in condition. If, however, our memory serves us correctly, the greater number of Mr. Key's operations have been performed on young subjects.

CASE OF CANCER OF THE PENIS.—OPERATION BY MR. KEY.

John Aston, forty-seven years of age, a labouring man from the county of Worcester, was admitted into Job's Ward, under the care of Mr. Key, on the 22d of October.

The patient, a stout healthy-looking fellow, said that about fourteen months previous to admission a very small warty excrescense made its appearance on the upper part of the prepuce, which occasionally bled when irritated by his linen adhering. It went on gradually increasing, and at length extended completely round the fore-skin. He had always experienced much difficulty in retracting his prepuce, but after the appearance of the disease, phimosis was complete.

In the course of a few months, a purulent discharge issued from beneath the prepuce, and the penis, to some extent downwards, gradually became very hard; there was occasionally severe lancinating pains in the parts.

When admitted, the penis presented a very remarkable appearance; at the tip of the prepuce, (which we may observe was very long,) was a flat, button-like, fungous growth: in fact, we do not know that it can be better described than by supposing the prepuce to be drawn down and much elongated, then the lips of the prepuce turned out, and presenting a red fungous surface. The glans was completely hid, and on making pressure upon it, a quantity of purulent matter came from beneath the foreskin, and pressing around the tip of the prepuce, sebaceous matter was seen issuing from numerous pores in the fungous surface. The prepuce being, as we have previously remarked, much drawn down, and the glans being much expanded behind, gave a curious bulbous appearance to the whole. The integuments of the penis, to about one-third of their extent downwards, were preternaturally hard. There was no glandular enlargement in either groin.

Mr. Key, fully satisfied as to the malignant nature of the disease, proposed an operation, to which the poor man assented, and it was accordingly performed on Tuesday, October 30th.

Operation.

Mr. Key first introduced a director beneath the upper part of the prepuce, and with a phimosis knife freely slit it up. This exposed the glans, and Mr. Key further laid it bare by turning back the fore-skin, now completely liberated, and not adherent to the glans.

This latter part was found to be less diseased than was previously supposed; the upper part, adjoining the corona, was studded with numerous small warty granulations, and the tip of the glans was affected in a similar manner. With respect to the fore-skin, it was found to be universally diseased, being completely covered, on its inside, with small hard granulations, similar to those affecting the glans. Mr. Key removed the diseased integuments, all round, performing circumcision, in fact, but going to some distance behind the glans, so as to include the whole of the hardened skin. The next step in the operation was to remove the diseased portions of the glans. In cutting away the upper part near to the corona, a large artery was divided, which was tied, and this, with the arteria dorsalis penis were the only vessels secured. A piece of lint dipped in spirit of turpentine was wrapped around the wounded parts, which had the effect of staunching the hæmorrhage; in addition to this, a broad tape was fastened moderately tight round the penis, by means of a running noose, and the patient was put to bed.

TO CORRESPONDENTS.

Communications have been received from the following Correspondents:—Dr. Noel—Mr. Williams—A Practitioner of Cork—Caballus—Mr. Lefevre—Messrs. Price and Gifford—Mr. Fixott—X.—A Veterinary Surgeon—Dr. C. M. Kind—Mr. Allison—Philippos—Peter Pry—Aristarchus—Dr. Negri—Charity—A. H.

The following papers have also reached us:—Observations on the Leeds Infirmary—Case exemplifying the Insufficiency of Midwives—A Memorial—A Letter to the Governors of the General Hospital, Nottingham.

The request of Messrs. Price and Gifford will not be forgotten.

It is feared that the suggestions of "A Cork Practitioner" are impracticable.

Did "X. O." get our letter?

It is impossible to comply with the request of "A Veterinary Surgeon."

The case of Mr. C. will be alluded to in our next Number, on which occasion we shall insert the letters of "A Pupil of the Westminster," "A Pupil of St. Bartholomew's," "Dr. Negri," and probably the valuable paper of "Dr. C. M. Kind."

THE LANCET.

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LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture IX.

On the Phenomena of the Leyden Jar, and on the Modes of accumulating Electricity by Induction.

Gentlemen,—You observed, in the last Lecture, that when substances were rendered electric, they had a tendency to be affected by surrounding substances; and that when two bodies were similarly electrified, they had a tendency, in all cases, to repel each other; I explained to you, also, what was meant by the similar and dissimilar electrical states of bodies, so that I need not say more on that subject. But you will remember, that if a globe of this kind (a brass globe) be brought near another, similarly electrified, it will be repelled by it, and attracted if dissimilarly electrified; and we found that the two electricities were sufficient to annihilate each other, and that if I made a communication between the negative and positive conductors of the machine, that all electrical efforts were put a stop to. We then proceeded to examine the electrical power which had a tendency to spread itself over certain substances, whilst other substances seemed to receive it only on the part touched, such as sealing-wax and glass; and this led us to divide bodies into conductors and non-conductors, and I mentioned the limitations with which these terms must be received. Having established these general facts, we then examined what happened when an electrified body was brought into the neighbourhood of another insolated electrified body, and we found that it was thrown into the polar state, and that either highly positive, or highly negative, according as the bodies were previously in the one state or the other, and that the moment they approached each other sufficiently near for a spark to be produced, or touched each other, that then all phenomena of polarisation ceased. So that you never see the electric spark produced, without being reminded of the annihilation of the two electricities. Now the *Leyden phial* exhibits a similar arrangement to the apparatus I before showed you; but instead of air being between the rows of metal, as in the spiral tube, you have the presence of glass. Here then you have the same thing happening, as with the former apparatus; you have an accumulation of electricity by induction, but the conducting medium, instead of being air, is glass. Now here you see are two plates of tin foil, one placed on each side of a piece of glass, which distributes the electricity over the surface of the glass, rendering the one surface of the glass positive and the other negative, and then by bringing the two surfaces into contact with a metallic conductor, a violent spark is produced, which annihilates the two electricities. Now, if you substitute a phial for a plate, you have a very convenient form of the same apparatus; that is to say, you have a stratum of glass which you can render electrical on its two surfaces, the interior by being in contact with this coating of tin foil, the exterior having also a coating of tin foil for the same purpose. And it is necessary, in charging a jar of this kind, to take care that every part of the jar is of the same thickness, or as nearly so as possible; the jar may be as thin as you like, but it should be of an uniform thickness, and it should be free from all asperities and points, which would convey away the electricity it is your object to accumulate. When the inner surface of the jar is rendered positive by union with the conductor of the machine, the exterior, being in connexion with the ground, becomes negative by induction, and a communication having been established with the external and internal surfaces, an explosion takes place, and all electrical phenomena cease.

In order to judge of the change which a jar of this kind has received, we avail ourselves of electrometers of this sort, as I showed you in the last Lecture; but I show it to you also as being a useful contrivance, to tell you whether the jar has received its charge properly or not, whether it is diffused equably or otherwise. Now I have communicated a certain quantity of electricity to this instrument, which is called *Henley's quadrant electrometer*, and it is useful not only to show the degree of charge the jar has received, but how long it retains it. I have already adverted to the effect of asperities and points upon electrical apparatus, and stated to you that the result was to carry off electricity; and if we apply a brass *ball* to the conductor of the machine, we shall elicit a very powerful spark, but if we insert a point into the hole of the conductor, none, or very feeble sparks, can only be procured. If the hand be held over a point, you will feel a little curious air projected against it, called the aura electrica, which depends upon the rapid recession of the electrified air, affording a sort of stimulus to the part, which is sometimes rendered available for medical purposes. This shows you how necessary it is to have all electrical apparatus as free from asperities, as nearly round, and in as polished a state as possible; and you will now understand the reason why we oppose a row of points to the prime cylinder of the electrical machine to receive the electricity generated upon the surface of the glass, the points taking the electricity and conveying it to the conductor. Now to go back again to the theory of the Leyden jar, as adopted by Franklin. I have said, that in charging the jar in proportion as we throw electricity upon the inner surface, we must throw it off from the outer surface; and if this be the case, if we insulate the jar by placing it upon a non-conductor, it cannot be charged, because the electricity cannot get away from the surface of it; and we find, in point of fact, that it is necessary to connect the jar with the earth, or some great conducting surface, in order to charge it. In proportion as the electricity is spread over the internal surface of the jar, it passes off from the external surface, and if I place two or more Leyden jars in connexion with each other, provided the last be in communication with the earth, I shall find that both jars will be similarly charged, the internal surface being positive, and the external negative; and it has been often imagined, that because the external surface of the second jar is negative, there must be negative electricity thrown off from the first jar; but that is not the case. We shall have as many jars as we choose to employ, all in the same relation to each other, of positive and negative electricity. You will observe, that here in these Leyden jars, we have merely the counterpart of a series of conductors, glass serving as the medium through which the induction takes place.

Dr. Franklin contrived a great number of ingenious experiments to show the accuracy of his theory of the action of the Leyden jar. If we charge one jar with positive, and another with negative electricity, we shall find, by approximating the jars, that a discharge takes place, and that all electrical phenomena will cease. Now here I have connected one jar with the negative conductor of the machine, and another to the positive, and of course we shall charge both jars. If I now make a communication between them, we shall effect a discharge, and the whole of their electricity will disappear. Mr. Brande made the experiments just described, which, like all his other experiments, succeeded perfectly well.

I shall now endeavour to show you an experiment, which will serve to show you the use of the coating; to show you that it is useful merely to distribute the electricity over the surface of the glass, and that the electricity itself appears to adhere to the sides of the glass. Here is a jar constructed with moveable coatings; I shall first charge the coatings, and having done so, shall remove the jar; in the coatings, I shall find only a very small portion of electricity. But if I now replace the jar in the coatings, and bring its surfaces into communication, we shall find that it has retained its electricity, and will afford a powerful spark. Then we infer from this, that the electricity is spread over the surface of the glass. You now see the use of these *discharging rods* in making electrical experiments, because without them we should often get a shock through the body, which is by no means a very agreeable sensation. We use them for the purpose of transferring the electrical charge, and they are sometimes called dischargers. There is a great variety of experiments illustrating the phenomena of induction; but we must select those only which bear upon chemistry.

Electricians are apt to talk of *quantity* of electricity as opposed to *intensity*. By quantity, they mean that amount of electricity which may be diffused over a surface independent of its effect; and by intensity, to signify the power which electricity has of stepping from one surface to another. For instance, if I bring my finger near a body, and allow a portion of air to intervene, and if I then find the electricity is communicated to my body, I say that the electricity was in a state of intensity sufficient to pass from the body to my hand. But if I distribute the electricity accumulated upon a small surface over a large one, I perceive then, on approaching my hand, very little effect, because the quantity of electricity is diffused over a large surface, and its intensity thereby diminished, although the absolute quantity was the same upon the two surfaces. And hence, when bodies are in connexion with the earth, we lose all appearances of electrical phenomena in them, and it becomes necessary, therefore, to insulate bodies, in order to bring them into a state of electrical intensity: the electricity lodging on the surfaces, and not in the mass of bodies. If we accumulate electricity upon large surfaces, we must not only recollect that we collect it in large quantities, but also in great intensity. In the Leyden phial you will have an opportunity of seeing this, and of noticing the fact, that in proportion as we get quantity we lose intensity. We have now the jar charged, as you have seen, with twelve turns of the machine, and you see that the spark produced is nearly an inch long; let us now extend the same quantity over a large surface, and we shall find, that although we have the same quantity of electricity, it has lost in intensity.

I mentioned to you, that the electrical discharge was attended with a considerable degree of *heat* and *light*, which is called the electric spark; and that it had been accounted for by the sudden, or impetuous, rush of electric matter through the air, extricating heat by its compression of the air. If we take a little spirit of wine, or æther, and pass an electric spark through its vapour, we shall generally find that there will be heat enough to inflame it, and you know that in order to inflame it a pretty high temperature is requisite. (The experiment was then made, and the vapour of æther inflamed.) If I dip a bit of tow in spirit of wine, and pass an electric spark through it, the tow will become ignited; and thus the chemist is often in possession of the means for igniting bodies without much trouble, through the medium of common electricity. I shall now pass an electric explosion through a small matter of wire, and the wire, you will see, will not only be made red hot, but will actually burn, exhibiting the effects of a very high temperature; and if the weather were favourable, I might show you that we can, in this way, burn metallic wires of very great thickness.

Now there is another application of common electricity to chemistry, which is very frequently made, namely, in the decomposition of substances, and procuring the combination of certain gases, and occasionally, of some fluids. You saw, in the last lecture, that electricity was often generated, as it were, or brought into action, upon solids changing into fluids, and on various alterations in the forms of matter, so that it is very difficult, at any time, to alter the state of matter without at the same time altering its electrical relations, although we do not observe their changes without proper attention. It was ascertained, long ago, by Mr. Brent, that when warm air was blown over dry glass, the glass became highly electrical; and that by puffing certain powders upon metallic plates, the plates became electrical; and he observed the curious fact, that certain substances, so blown, rendered the plates negative and others positive, depending upon their chemical nature; so that, if you change the state of a body, you will find that its chemical relations are altered. Now here, upon the cap of the electrometer, we shall place a little water, under such circumstances as will allow of its speedy evaporation, and you see how powerfully the leaves of the electrometer are diverged, indicating that electricity is generated; and if we examine the kind of electricity, we shall find that it is negative. Our earth is continually undergoing evaporation from its surface, and you may easily imagine what an immense quantity of electricity must be generated; the air becomes electrical, the clouds become electrical, and all this in consequence, merely, of the alteration in the forms of matter.

Then, again, in regard to the contact of metals, it may be shown, and indeed you will see experiments hereafter in illustration of the fact, that if we arrange different metals in contact with each other, their electrical states become changed; and this happens with the dissimilar metals, the metals most oxidizable being always positively, and the metals least oxidizable negatively electrical. Experiments of this kind seemed to have been made by Mr. Brent, but they attracted more attention by being observed to resemble certain effects upon animals, noticed by Galvani, who did not, however, attribute the motions observed in the animals to the metals, but to some nervous fluid which had found its way through the metals. Volta, however, discovered that the effects upon the animals are produced by the metals, and that the animal was merely a delicate electrometer. The animal fibre appears to be only the indicator of the state of electricity; I cannot procure a frog this morning to show you the effect of the contact of metals upon it, but it may be shown by a very easy experiment: if you put a piece of silver over the tongue, and a piece of zinc under it, the moment the two metals are brought into contact, you will perceive a peculiar brackish taste, and an indescribable prickling sensation in the tongue, the tongue being acted on by the electricity in the same way that the frog would be.

Now there is only another circumstance to which I need to advert, which is, the important chemical powers which the metals derive in consequence of electrical relations, which we shall consider more fully in the next lecture. Here is some very weak acid, and here a piece of zinc and a piece of copper; if you introduce the zinc into the acid singly, it will produce but a very feeble action upon it, and upon the copper the acid exerts no action at all; but let us bring the two metals into the acid connected together, and it will then be seen that they act powerfully, that a great quantity of gaseous matter is liberated from the copper as well as from the zinc; and in the next lecture we shall consider the subject of the generation of electricity by the contact of the metals, and the construction of the Voltaic pile.

Lecture X.

On the Generation of Electricity by the Contact of Metals, and on the Construction of the Voltaic Pile.

Gentlemen,—I stated in the last lecture, that when two dissimilar metals were brought into contact, their electrical states were disturbed, and that this fact was ascertained by Mr. Brent, and proved by his very delicate gold leaf electrometer. Now zinc is most readily acted on by air, water, and acids, and it is, in common language, the most oxidizable metal, for it is always found to assume the positive state compared with the others. Copper is less oxidizable, so that if it is our object to produce a powerful electrical arrangement by a combination of the metals, we select those which are most dissimilar from each other in their degrees of oxidization, and for all common purposes we select copper and zinc, as the metals best adapted to this object, being conveniently and economically applied.

The metals have been called *electrometers*, and I shall not stay to show you why this is the case, but you must be for the time content with the fact, that when you bring an easily oxidizable metal into contact with one less oxidizable, admitting that these were before sufficiently clean and pure, the least oxidizable assumes the negative and the other the positive state of electricity. I showed you, that the chemical properties of metals were materially affected by their electrical states, and that when one metal was in contact with another it acquired, in consequence of that contact, certain chemical peculiarities which must be attended to; these will be considered in the phenomena of the *pile*, which we shall soon have occasion to remark upon. Suppose now, having established these general facts, suppose, I say, that we now proceed to arrange copper and zinc plates, or, in other instances, zinc and silver, in a certain order in contact with each other, they will be found, in consequence of that contact, to have acquired a certain state of electrical polarity. Here is a small plate of zinc, and I put a small plate of copper upon it, and of course I cannot accumulate electricity in this way; I obtain all the effect that the pair of plates can produce, but there is no accumulation. Now it occurred to Volta, that if he interposed between the plates some substance admitting of the induction, not of the direct passage of the electricity then generated, he might be able to accumulate it to a considerable extent. Here, you see, is an arrangement of this kind; it consists of a number of discs of silver, and zinc and tissue paper, moistened by being dipped in an alkaline solution, many times alternated. You have, in this instrument, what Volta was a long time in search of, namely, an electropolar arrangement of extremities, which enables you to use the one or the other as may be required; and to prove that this is the case, I have only to touch the cap of the electrometer with the silver end, the leaves will be seen to diverge, and by keeping the extremity of the pile still for a little time, the divergence will be sufficient to enable us to ascertain its state, and it will be found to be negative; but if I touch the cap with the zinc extremity, the leaves of the electrometer will approach each other, and will diverge by approaching the sealing wax, showing that they were then in the positive state of electricity. It is by experiments, then, of this kind, that we ascertain the nature and state of the pile, and that we perceive it to be in a condition of electrical polarity, exactly resembling the Leyden jar; the zinc end of the pile being positive and the silver negative. If I now make a communication between the two extremities of the pile, I shall annihilate the electricity, and shall produce the same effects as when I made a communication between the inner and outer surfaces of the Leyden jar; but the electricity is by this contrivance generated afresh, and there is a constant current passing from one end of the pile to the other. There can be no doubt, then, as to the excitation of electricity in this way, and as to the state of the electricity, but as to the cause of its excitation there is a great difference of opinion; it is connected with many phenomena of which we know very little. By some it is supposed to depend on chemical action; by others on the mere contact of the metals, and there can be no doubt that by the mere contact of clear metals electricity is apparently generated, independent of any chemical action; I say apparently, because we must speak with some caution on these points, and that it is by the *induction* which takes place through the medium of the substances interposed between the plates, that the accumulation is obtained to which many of the phenomena exhibited by the pile are owing.

Now this contrivance (pointing to one on the table) was made by De Luc, and it has been called De Luc's *electrical column*; it has been supposed to be different from the construction of the electrical battery, but for this I think there is no good reason. It is, as you see, a glass tube in which a number of alternating plates of silver, zinc, and paper are arranged, each extremity of the tube having a brass cap, one of which is always positive and the other negative.

Here is an arrangement in which we have a number of copper and zinc wires attached to each other, with pure water only intervening, and you will find that in this apparatus also the zinc extremity is in the positive state, and the copper in the negative, but that you have a central part which is neutral; but on making a communication with the ground, we have the opposite extremities proportionably excited, and thus have just the same effect produced as with the Leyden jar, or rather with its conductors under induction: but then when you have discharged the Leyden jar, there is no regenerating power in it; here, however, there is such a power, and there is a constant current kept up, or supposed to be kept up, from the positive to the negative end of the apparatus. (Experiments were then made to show this fact.) Now we arrive at Volta's experiments on the pile, to whom we are principally indebted for this felicitous contrivance, although Mr. Brent's discovery must not be overlooked. Volta proceeded to make such an arrangement as might enable him to accumulate the electricity generated by the contact of the metals, and one of the forms of the apparatus which he contrived, was a number of cups containing dilute sulphuric acid, into which he immersed wires of zinc and silver soldered together, arranged in regular order; so that you perceive there is a silver and zinc wire in each glass, but they are not in communication, the fluid interposing between their extremities, and although you have a zinc wire in the same cup with the silver, there is a break in their arrangement, and consequently their electrical effect is interrupted. You may observe, that the acid is slightly acting upon the zinc only; but if I make a communication between the extremities of the arrangemement by passing another wire from the one to the other, you will see that the silver wire is in action as well as the zinc, and that they are both giving off gas, and this is only in consequence of the current of electricity generated. Volta called this arrangement the *couronne de tasses*, and I show it you, because it is a type of the Voltaic pile. Various modes of constructing the apparatus have been resorted to for the purpose of rendering it more convenient and active; sometimes double plates of zinc and copper have been soldered together, and cemented into wooden troughs in regular order, the intervening cells being filled with water or saline and acid solutions; but a serious inconvenience attaches itself to this apparatus, which is the difficulty of emptying the cells, and therefore it has been much improved upon, as we shall by and by see. In all the experiments of this kind we observe, that the electricity is regularly generated or produced, but that it is materially affected by the nature of the intervening medium; that in water a weak effect is produced; that by using acids the power is considerably increased; but that when we wish merely to get evidence of the excitation of electricity, pure water is preferable. A greater effect in the way of shock is produced by the water, but you cannot ignite wire, nor produce those effects which we have already ascribed to the quantity of electricity, and this effect we procure by altering the nature of the medium between the plates.

Now here is a Voltaic pile, which was one of the first instruments of the kind that was employed, and you easily observe, that it consists of a series of alternations of copper and zinc plates and moistened flannel; first a piece of copper, then a piece of flannel, and a plate of zinc. If I moisten my fingers so as to make the cuticle a conductor, and touch both ends of the pile, I shall feel only a weak shock produced; but if I affix a metallic conductor to each pole of the apparatus, and then bring these conductors into contact, a very luminous spark will be produced, and if I direct the two streams of electricity upon a piece of charcoal, the light is not only very vivid, but long continued; the conductor from the zinc side of the pile carrying the positive electricity, as being the most oxidizable metal, and the conductor from the copper extremity carrying the negative electricity; and this is always the case. If we interpose combustible bodies upon a piece of charcoal between the extremities of the conductors, they become heated, ignited, and burn with considerable intensity, as you will see presently, when we use a larger apparatus. If we bring the conducting wires in contact with water, they will decompose the water; the one wire will give off oxygen, the other hydrogen, the elements of the water; the latter being liberated at the negative pole, and the former at the positive.

If we examine the state of the wire during the time it is carrying this current of electricity, we perceive a curious fact, which was discovered by Oersted, that the wire carries a current of magnetism at the same time; but the chemist has nothing to do with that. These are some of the principal phenomena that we observe in connexion with these experiments. Now there is some inconvenience in the apparatus of Volta, arising from the drying of the flannel, which is placed between the metallic plate in the construction of the pile, and therefore the effect is liable to be interrupted; and to do away with this, Mr. Cruikshank of Greenwich, some years ago invented a trough in which the plates of zinc and copper were soldered together in a trough containing water, by which the electric effect was kept up a longer time than by the arrangement of the Voltaic pile; this, however, was found inconvenient, in as much as it was difficult entirely to remove the fluid from the plates, and they were soon oxidized and destroyed; and I believe that Dr. Babington first used an earthenware trough, into which he immersed the metallic plates, which were strung together and connected to wooden frame work, by which contrivance they might be let into and removed from the acid or other fluid at pleasure. There is a peculiar modification in this form of the Voltaic apparatus, which is this: there is, you observe, a thin plate of copper doubled round the zinc plate, so as to oppose it to every surface of the zinc plate. We have not, you perceive, a single plate of copper and zinc, but the copper is doubled round it, and this is a contrivance of Dr. Wollaston, which very materially increases the power of the electricity generated in the trough. It may be regarded as the most economical and useful form of the Voltaic apparatus, especially for all those experiments in which quantity as well as intensity is wanted. Dr. Wollaston was in the habit of showing the effect of this form of apparatus, by comparing it with the influence of a single pair of plates upon a piece of platinum wire, which produces no effect upon the wire; whereas, with this contrivance, you can easily succeed in igniting and fusing it. Now, here you see the light produced by the destruction of the electricity of the two poles of a very moderate-sized apparatus, and you observe how very brilliant it is, resembling that of the sun, not only in its intensity, but also in its chemical properties. If I place a piece of wire between the two poles of the apparatus, you will see that it soon gets red hot and fuses, and, in this way, we can fuse platinum wire, and other difficultly fusible bodies. We may burn the metals by an arrangement of this kind; here is a portion of quicksilver which burns with a greenish light, and throws off a quantity of fumes, which are an oxide of the metal. Gold, copper, silver, and several other metals, were burnt, to show the variety of colour which the flames furnish. Iron wire was readily melted, and thrown off in globules; zinc burned with almost the same facility as paper; the combustion of the zinc affording a dense white flocculent oxide, formerly called philosopher's wool, which floated about in the rooms, showing that there is an intense heat as well as light generated.

Here is some water contained in a strong glass vessel, through which we shall pass the electricity; in this case the vessel of water will represent one of the cells of the battery; the water is immediately decomposed, and the gaseous matter is evolved in a definite mixture of two volumes of hydrogen, and one of oxygen; and this important discovery, as well as the discovery of the decomposition of some saline bodies, was made by Messrs. Cruikshank and Carlisle, when examining the properties of the electrical pile; but it was imperfectly understood, until Sir Humphry Davy took up the subject; which, as you know, led him to these important investigations, that terminated in the discovery of the basis of the alkalies, and other substances, supposed before to be simple bodies. Now, in the decomposition of the water, the oxygen is given off at the positive pole, and the hydrogen at the negative; and it follows, that as the *oxygen* is attracted by the positive poles, its inherent, or natural electrical state, must be negative; and, therefore, we call the *supporters of combustion*, or acidifying bodies, *electro-negative*; and we call *hydrogen* and *inflammable bodies, electro-positive bodies*, because they are attracted by the positive pole, upon the principle of similarly electrified bodies repelling each other, and dissimilarly electrified bodies attracting each other. Now, if we submit saline solutions to the action of the Voltaic pile, we shall find that the salt is decomposed along with the water, and that its elements are attracted by the poles of the battery, according to similar laws. Here is a solution of Glauber's salt in water, and the water is coloured, in order to show you the liberation of the acid at the one pole, and of the alkali at the other; and, in order to show you this more clearly, we use an apparatus of this kind. Here you observe are two glass cylinders filled with the coloured solution of Glauber's salt, inverted in two shallow basins of water, and the two are connected together by a small tube passing from the mouth of one cylinder to the other. The conductors are introduced separately into the mouths of the inverted vessels; and, in the one, you will have the oxygen and the acid matter of the solution, and, in the other, the hydrogen and the alkali of the salt; in the first the colouring matter will be changed into red, and, in the latter, it will be green. You will perceive that the acids and alkalies will pass each other uninfluenced by chemical attraction, but as soon as you remove the electrical influence from the solution, the former relations will be renewed. If we could show you that alkalies and acids could be produced in pure water by electricity, we should show you a very important fact; but Sir Humphry Davy ascertained, that the acid and alkali previously existed in the water, and therefore proved, that all we effected was the separation of their elements, and that no new matter was generated. He showed that this separation was accomplished in the most perfect manner; that chemical attraction seemed to be overcome by electric attraction, and he was then led to infer that a number of substances before deemed elementary, might give up their elements when submitted to this mode of decomposition; and you know that the result of his examinations, with regard to the alkalies, was the great discovery of the metallic nature of their bases. So that you will remember, that whenever you decompose bodies chemically, water must be present; or oxygen and hydrogen the elements of water; and whenever you have chemical decomposition going on by electricity, you will generally have them collected at the two poles.

Now, there are some other facts connected with the generation of electricity, and its general phenomena, to be considered, more especially with regard to quantity and intensity; and, in the next and concluding lecture on this subject, I shall point out a few of the natural phenomena in which electricity is concerned, and advert to one or two of the principal facts connected with the excitation of magnetism by electricity.

FOREIGN DEPARTMENT.

STOMACH OF BIRDS.

In most birds, the stomach lies at the upper part of the abdomen, that is, close to the spine, and rests, in a manner, on a stratum of intestines; in the *cuckoo,* however, it lies below. This peculiarity does not belong exclusively to that curious bird, for I have found it in the *ramphastos* and the *corvus caryocatactes* (the nut-cracker).

The structure of the stomach differs most widely in the different orders and genera of this class. It appears merely as a thin membranous bag in several of those which feed on flesh and insects, when compared with the thick, muscular globes of the granivorous genera. But there are both many intermediate links between these extremes, and at the same time considerable analogies in the structures, which are apparently the most opposite. This is particularly observable in the course of the muscular fibres, and in the callous structure and appearance of the internal coat, in which points many membranous stomachs have a great resemblance to those of the *gallinæ.*

Both parts, but particularly the muscular, are very strong in the gizzard (*ventriculus bulbosus*) of granivorous birds. We find here, instead of a muscular coat, four immensely thick and powerful muscles, viz., a large hemispherical pair at the sides, (*laterales,*) and two smaller ones (*intermedii*) at the two ends of the cavity; all the four are distinguished, both by the unparalleled firmness of their texture, and by their peculiar colour, from all the other muscles of the body.

The internal callous coat must be considered as a true *epidermis,* since, like that part, it becomes gradually thicker from pressure and rubbing. It forms folds and depressions towards the cavity of the stomach, and these irregularities are adapted to each other on the opposed surfaces. The cavity of this curious stomach is comparatively small and narrow; its lower orifice is placed very near the upper. Every part of the organ is, indeed, calculated for producing very powerful trituration. The numerous experiments which Reaumur performed, in order to determine the extent of this triturative power, are universally known. There are two curious observations on this subject less generally known. Felix Plater found an *onyx,* which had been swallowed by a hen, to be diminished by one-fourth in four days; and a *louis d'or* lost in this way 16 grains of its weight. The end and use of swallowing stones with the food, the well known instinctive practice of granivorous birds, have been very differently explained. Cæsalpinus considered it rather as a medicine than as a common assistance to digestion; Boerhaave, as an absorbent for the acid of the stomach; Redi, as a substitute for teeth. According to Whytt, it is a mechanical irritation, adapted to the callous and insensible nature of the coats of the stomach. Spallanzani rejected all supposition of design or object, and thought that the stones were swallowed from mere stupidity. I think there is not much sagacity to be discovered in this opinion, when we consider that these stones are so essential to the due digestion of the corn, that birds grow lean without them, although they may be most copiously supplied with food. This paradoxical opinion has, however, been already refuted by Hunter and Fordyce. The use of swallowing these stones seems to me to consist in this, that they kill the grain, and deprive it of its vitality, which otherwise resists the action of the digestive powers. Thus it has been found, that if the oats and barley given to horses are previously killed by heating, the animal only requires half the quantity, and yet thrives equally.—(*Blumenbach's Comparative Anatomy, by Lawrence.*)

TWO CASES OF DISLOCATION BACKWARDS OF THE RADIUS, AT THE ELBOW JOINT. *By* C. J. M. LANGENBECK, *Professor of Surgery and Anatomy, at the University of Göttingen.**

Dislocation of the radius backwards must be an extremely rare occurrence, since Sir ASTLEY COOPER never met with this accident in the living, and only once in the dead subject. With the exception of the two cases which I am about to relate, I never met, during the whole course of my professional career, with a dislocation of the radius in any direction. Last winter, however, two persons were brought into the hospital with a luxation of the radius: in one case, the man was twenty years old, and the accident of six weeks standing; in the other, the injury occurred in a child five years of age the day before its admission into the house. In both, the symptoms were so distinctly marked, that on the first inspection of the part, I recognized the nature of the injury before me. On an examination of the joints, the head of the radius was found thrown a little backwards and outwards from the external condyle of the humerus, and could not be immediately detected. The peculiar form of the radial side of the fore-arm, without displacement of the ulna, chiefly indicated the nature of the mischief. At the origin of the supinator radii longus, the extensores carpi radiales, and the other extensors from the external condyle, and the upper position of the radius, there was a marked prominence; the form was somewhat similar to what we meet with in rickety persons, in whom the radius is generally bent. The hand was prone, and could not be brought into a state of supination; the fore-arm was moderately bent, in which position it was fixed, for the arm admitted of neither flexion or extension. On the inner side of the internal condyle, the skin was lax, and presented a depression, in which the internal articulatory surface of the humerus could be felt. On tracing the radius from below upwards, the finger came against the external condyle, behind which, in the adult, the articular circumference only of the head of the radius could be felt, and next to it the olecranon. On placing the fingers on the radius in this spot, and moving the bone as far as it admitted, the motion was also communicated to the finger. Behind and below the external condyle in the child, the glenoid cavity of the head of the radius could be felt.

Although the first dislocation was of old standing, attempts at reduction were made. The principal measure to be adopted, appeared to me a powerful but gradual extension of the fore-arm, in order, by this plan, to draw the head of the radius towards the articulating surface of the humerus; at the same time, making counter-extension of the upper arm, I passed the dislocated head inwards. As in this case, very strong and long-continued extension was absolutely necessary; I could now completely stretch out the fore-arm, which before was not practicable, and thus push the head of the radius inwards. The limb was kept in this situation by splints and bandages, and the patient was soon able to move the fore-arm in the four directions, to a very considerable extent, and then left the hospital. In the child, moderate extension only, with pressure, was quite sufficient to reduce the dislocation.

The dislocation of the radius in any direction so seldom occurs, that it may be interesting for a moment to inquire into the nature of the force necessary for the production of this accident, and the anatomical effects which result from the injury. The head of the radius is so completely protected and concealed on its outer and fore part, that the chance of displacement from force applied in these directions, is considerably diminished. The only situation, then, where the application of force is likely to effect displacement of the head of the radius, is in the palm of the hand, opposite to the muscles of the thumb; but in falling, the whole palm of the hand generally receives the shock of the fall, which will then be communicated to the ulna, as well as to the radius; and the former bone being more easily dislocated, is that which commonly suffers.

When the displacement of the radius occurs, the orbicular, as well as the capsular ligament, will be lacerated, and very probably some of the superior fibres of the interosseous ligament. The latter may, perhaps, be stretched sufficiently to allow of the displacement, but the orbicular ligament will be invariably ruptured, of course assuming that the ulna remains in its situation.

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* Langenbeck's Neue Bibliothek für die Chirurgie und Ophthalmologie, vol. iv. pt. 3.

LIGATURE OF THE SUBCLAVIAN ARTERY.

Professor Langenbeck performed the operation of tying the subclavian artery above the clavicle, on a student in whom the arteria axillaris was wounded in a duel. Beneath the platysma and superficial fascia, the operator met with an anastomosis of veins between the external jugular, transverse scapular and transverse of the neck, which he pushed to one side with the handle of the scalpel, and thus avoided wounding these vessels. The transverse scapular and transverse cervical arteries were avoided with care, not only from fear of hæmorrhage, but of destroying those anastomoses by which the circulation is afterwards to be carried on. The division of the transverse cervical artery will be the more prejudicial to the restoring of the circulation, if the art. dorsalis scapular be, as it frequently is, given off from it. It is of great importance, when the operator has the choice, to tie the artery on the outer edge of the scalenus anticus, since it gives off, before it passes under this muscle, all the branches which may be injured. In tying the artery on the inner edge of the scalenus, the recurrent nerve on the right side, and the phrenic nerve, might be wounded. One of these nerves passes under and the other over the subclavian artery before it has passed between the scaleni. In the perfectly unseparated state, the omo-hyoideus lies close to the posterior half of the clavicle, and on the inner or inferior portion of the subclavian artery, it must be pushed upwards.

Professor Langenbeck passed the ligature round the artery from above downwards, i.e. between the nerves and the vessel, and then tied it. The ligature came away on the eleventh day, and the motions of the arm gradually returned. There was no perceptible difference in the size of the two arms but on the side operated on, the pulsations of the radial artery were not restored.

ON MEDICAL EDUCATION IN THE GERMAN UNIVERSITIES.

By C. M. Kind, M.D.

The peculiar interest which, at the present moment, seems to be excited by the plan of medical education in the Continental Schools, in comparison with that followed in Great Britain, has induced me to draw up the following concise account of the manner in which the study of medicine is prosecuted in the *German Universities.* All comparative remarks will be carefully avoided, and it will be left entirely to the readers to decide, whether the numerous points in which it differs from the method adopted in this country, are really so advantageous and indispensable, as they are universally considered to be in Germany.

Before entering into an exposition of the manner in which medical education is there conducted, I deem it necessary to make some general observations, which will easily account for several differences between the two methods.

I shall not examine whether the study of medicine, surgery, and midwifery, ought to be separated, this question having been long ago and unanimously answered in the negative,—not only in Germany, but on the whole continent. The practice of the three medical branches is, indeed, separated in Germany, but only because a full theoretical knowledge of, and a practical skill in them, cannot be found combined in one individual; still less can it be expected, when the practitioner combines with these the profession of an apothecary, nay, even the business of a chemist and druggist, that he should possess a sufficient knowledge of *any* of his various vocations. For this reason, with us, apothecaries are not allowed to visit patients, and their business is confined to the preparation of medicines prescribed by the practitioners. This circumstance, extending likewise over almost the whole continent, accounts for the scarcity of apothecaries, compared with the number of physicians and surgeons, while the contrary obtains in Great Britain.

One of the most beneficial effects arising, in some degree at least, from the non-division of the study of the three medical branches, is the perfect equality of *all* practitioners; all are entitled to the same pretensions and rights, and not the least superiority of rank or consideration in society is attached to any one branch. This equality also depends in a great measure upon the circumstance of all practitioners having received a classical education.

From what has been said of the combined study of medicine, surgery, and midwifery, it will be inferred, that the propriety of male attendance in all cases of delivery is universally admitted; there are, indeed, in all German states, public institutions, in which midwives are taught the elements of their profession; every midwife is carefully examined, before she is allowed to practise; her license is confined to the normal cases of delivery; and, on the least deviation from the natural process, she is compelled to require the aid of an accoucheur, under pain of the forfeiture of her license: yet, notwithstanding these measures in favour of the professional education of midwives, their practice is entirely confined to the lower classes.

The following are the ordinary professorships established in almost all German universities: anatomy, physiology, chemistry, botany, pathology and therapeutics, and surgery. These professorships are separate, and it rarely happens that two of them are held by one individual. The ordinary professors form what is called the medical faculty, to which, in point of medical law, the highest authority is attached. They form the board of censors, inspect the hospitals, examine the apothecaries' shops, &c. A certain number of their lectures is public and accessible to every student gratuitously; private lectures are also given by them. Besides the ordinary professors, there are extraordinary ones of the history of medicine, of general pathology, of comparative and morbid anatomy, &c., and private lecturers on all medical sciences, as will appear from an extract from the catalogues of lectures given in the universities of Leipzig, Goettingen, Berlin, and Heidelberg:—

NUMBER OF LECTURERS.

	LEIPZIG. Summer Course of 1827.	GOETTINGEN. Winter Course of 1827-28.	BERLIN. Summer Course of 1827.	HEIDELBERG. Summer Course of 1827.
On the History of Medicine	2	—	1	—
Anatomy	4	4	3	2
Physiology	4	3	4	1
Botany, and on the Physiology of Plants	3	2	3	4
Natural Philosophy	1	1	3	1
Chemistry	4	2	4	2
Nosology	8	6	12	2
Psychical Medicine	1	—	1	1
Dietetic	2	—	1	—
Pharmaceutics	2	1	4	3
Materia Medica	2	4	5	2
Therapeutics	5	5	8	2
Surgery	3	2	5	1
Midwifery	1	1	3	1
Clinic	4	4	6	3
Forensic Medicine	1	1	4	1

There is, in almost every university, a large building in which the lectures are given, and which contains, besides an appropriate number of lecture-rooms, the anatomical, zoological, mineralogical collections, chemical and physical laboratories, library, &c. The collections are destined for the lectures; they are also open during certain hours of the day to the students, and the public at large. The different lectures being given in one buliding, the student is enabled to attend them without any loss of time; besides, by agreement amongst the professors, the most important lectures are given at different hours, in order to prevent collision.

Whoever wishes to enter at the university, must produce a certificate of his having received a classical education. This regulation is *most rigorously* enforced in all universities; and as they alone contain the schools of medicine, the assertion, that all practitioners receive a classical education, is sufficiently confirmed.

Every student is at liberty to study what and how he pleases, nor is any period fixed for the study of his profession, the admission to practice depending entirely upon the result of his examinations. The time varies from four to five years; less will not be sufficient for the acquirement of a solid knowledge of the various sciences generally attended to, nor indeed for passing the examinations, an account of which shall presently be given. The following prospectus of those lectures which are generally frequented by the medical student during the period of his studies, may be considered as exhibiting the order which is universally deemed best, and consequently adopted by most of the students :—

<table>
<tr><th>1 Semest.</th><th>2 Semest.</th><th>3 Semest.</th><th>4 Semest.</th><th>5 Semest.</th><th>6 Semest.</th><th>7 Semest.</th><th>8 Semest.</th></tr>
<tr><td colspan="2">Natural Philosophy,
Chemistry,
Botany.</td><td>Pharmaceut.</td><td colspan="2"></td><td colspan="2">Medical Clinic,
Obstetric Clinic.</td><td>Forens. Medic.</td></tr>
<tr><td colspan="2"></td><td colspan="3">Nosology.</td><td colspan="3"></td></tr>
<tr><td colspan="3">Anatomy.</td><td colspan="2">Therapeutics,
Morbid Anatomy.
Midwifery</td><td colspan="3">Surgical Clinic.
Course of operations on the dead body.
Policlinics,
medical, surgical, and obstetrical.</td></tr>
<tr><td></td><td colspan="2">Dissections,
Comparat. Anat.
Physiology.</td><td colspan="3">Surgery.</td><td colspan="2"></td></tr>
</table>

The lectures are delivered in summer and winter courses, which together take up a space of about nine months and a half.

I shall now show the method in which the lectures on the various branches are delivered, noticing those peculiarities only, which distinguish it from that adopted in Great Britain.

The lectures on *natural philosophy* and *chemistry* are given from four to six times a week, the latter sometimes in a half yearly course ; but, in this case, they are usually attended twice over. I need hardly mention, that those parts of physics and chemistry which deserve the peculiar attention of the medical student, as electricity, optics, animal chemistry, &c., are often separately taught, and that all these lectures are illustrated by numerous experiments. Not unfrequently instruction, relative to the use of the physical and chemical instruments, is given in a detached course of lectures.

Botany.—The systematical part is generally taught in a summer course, lectures being given from four to six times a week ; phytotomy and physiology of plants during the winter. Besides the use of the botanical garden belonging to the university, in which the summer course is usually given, considerable instruction is derived from frequent excursions into the country made by the lecturer with his class ; thus, by reference to nature, the student is best taught to know, to distinguish, and to compare the characters of the different plants, to consider the nature and situation of the soil, its chemical composition, &c. In this manner the lecturer is furnished with a constant supply of interesting and practical remarks upon his subject.

The lectures on *anatomy* are attended during from one to two years. The perusal of the prospectus will give rise to the question, whether lectures on anatomy, unassisted by dissections, ought to be given at all, and whether these lectures ought to be separated from those on physiology. Experience decides in the affirmative, and speaks in favour of the course adopted abroad. A half yearly, sometimes a yearly, course on anatomy, precedes, and serves as an introduction to the dissections, which evidently cannot be equally instructive, without a previous general knowledge of anatomy. In this elementary course, anatomy is taught according to its division into osteology, syndesmology, myology, angiology, splanchnology, and neurology. These lectures are illustrated by the preparations contained in the museum of the university, by wax models, plates, and by demonstrations on the dead body. After these lectures, the second course is attended, which might be called a course on combined or surgical anatomy, as its principal object is to teach the natural situation of, and the relation between, the different parts of the body. At this period, the student enters the dissecting-room, and attends it daily during two semesters. Fortunately, hardly any prejudice exists in Germany against post-mortem examinations and dissections, and there is almost a constant supply of subjects from the hospitals, the poor, and workhouses, &c. Many persons of the lower classes even dispose of their bodies during life ; suicides and executed criminals are also brought into the dissecting-room. By these means, there is but seldom a scarcity of subjects ; and it may be safely asserted, that in Germany every student may dissect almost as much as he chooses. The dissections are conducted in the following manner : the demonstrator of the anatomical theatre, who is also appointed to take care that there is a constant supply of bodies, divides the subject into the head, thoracic viscera, abdominal viscera, genitals, upper extremities, femora and crura, so that one subject is distributed amongst ten individuals. Thus, during one semester, each part is many times dissected by the same student. The demonstrator, who is always a most skilful anatomist, (as at Leipzig the well-known Bock, and at Berlin the celebrated Rudolphi,) superintends and directs the dissections.

Comparative Anatomy.—It must be confessed, that till within the last ten years this branch has been considerably neglected by those, who have the superintendence of the German universities: even by private lecturers it was taught in a very few schools only. Since this period, however, an extraordinary professorship of this science has been founded in most universities; in all of them it is extensively taught, and the various governments, fully aware of its importance to the study of medicine, most liberally supply the lecturers on comparative anatomy, with the best means for calling to it the attention of the medical students. A cursory review of what has been done in Germany, during the last ten years, with respect to comparative anatomy, will exhibit the beneficial results of this encouragement to the study of general anatomy. The same may be said of the lectures on mineralogy and natural history, which, in all universities, are numerously attended by the medical students, although they are not generally considered indispensable.

Physiology.—These lectures are invariably separated from those on anatomy, and always follow the elementary course of the latter science. It is clear, that without a previous study of anatomy, physiology cannot be understood; it is, moreover, to be feared, that if anatomy and physiology were taught together, the study of the former would in most cases be neglected, the interest of the student being naturally more excited by the latter. The references to anatomy incidental to the physiological lectures, accordingly are considered as a repetition and application of what has been already taught. Those parts of physiology which deserve most attention, are separately delivered, and sometimes, as is done by Tiedemann at Heidelberg, experiments on living animals are combined with the physiological lectures.

Although the medical practitioner has nothing to do with preparing and compounding medicines, the knowledge of *pharmaceutics* is deemed indispensable, and the lectures on it are accordingly regularly attended. Very often separate lectures are given on the manner of prescribing, on the best method of examining the medicines contained in the pharmacopœia, on medical chemistry, toxicology, &c.

Pathology.—It may be mentioned here, that the German school divides this branch into general and special pathology. The former contains a general view of disease, its classification and its stages, its external and internal causes, its symptoms; not in the order in which they are met with, but separately and independently of each other, while the latter embraces the special descriptions of the different diseases—*nosology*. It appears from the prospectus, that the study of pathology occupies a considerable period, and from the comparative number of lectures, that several courses on its various branches are attended. Nosology is of course frequently taught without therapeutics; the latter never without the former.

The lectures on *morbid anatomy* are given in the anatomical theatre, the contents of which are destined for the use of the lecturers; the collection is besides almost daily open for the inspection of the students. Morbid anatomy is constantly separated from anatomy, from the same reason as physiology is.

The principal object of the *clinic*, to which our attention is next called, is to *introduce the medical student into the field of observation, to lead him from theory to practice*. Here he has not only an opportunity of observing, but is taught *how* to observe; under the superintendence of experienced men, he *acts*, for the first time, as a practitioner; here he is instructed how to *examine*, is accustomed to *found his diagnostic on reason carefully* weighed, and to *determine* his treatment upon rational indications: he is led to compare, to distinguish, to infer, contemplating Nature herself. This part of medical education, highly advantageous as it is, is *entirely* wanting in the medical schools of Great Britain, as will fully appear from a concise account of the manner in which the clinic is conducted in Germany.

We need hardly say, that it is divided into medical, surgical, and obstetrical clinic, (to which, in some universities, a clinical course of psychical clinic is added,) and that, consistently with the non-division of the study of medicine, surgery, and midwifery, these clinics are visited by every student. The number of students at each clinic seldom exceeds twenty; were the number greater, they would be deprived of the principal requisites for clinical instruction, viz. of the opportunity of seeing and hearing. The number of clinical patients is also generally limited to 16 or 20; it is evident, that a greater number of cases would only confound those who see them for the first time, and who are to be accustomed to careful observation. The clinic is generally held in the town hospital, to which the clinical professor in most cases is appointed physician; at all events he is at liberty to select those cases from the hospital patients, which seem to him best adapted for clinical instruction. It is clear, that at the beginning of the course he prefers the most common cases, as rare and curious complaints would only tend to perplex the student.

At first it is even advisable not to bring too great a variety of cases into the clinical wards; several of the same nature will be more fit for the observation of the pupil, than twenty of different diseases. The clinical wards are visited daily for about two hours, and no remission or interruption on the part of the professor, or on that of the students, is permitted, as it would prove greatly injurious to the principal object of the clinic, viz. to accustom the young practitioner to strict and steady observation. The time of the day is of course optional; from eight to twelve is usually preferred, in order to give the student time to visit his patients once more in the course of the afternoon. The clinical instruction being given at the bed-side, it is most advantageous to deliver it in Latin; however, this is done at but few universities: at Leipzig, which undoubtedly possesses the best clinic now in existence, it is given in excellent Latin by that distinguished individual, Clarus. At some universities, the clinical students are divided into *auscultants* and *practicants*, the former being admitted to the clinic, but without practising, which is done by those only, who have entered the second class. This division is very judicious; it prepares the student for his practical exertions, and prevents much loss of time. Previously to his admission to the clinical class, he must produce certificates of his having attended the necessary lectures, and not unfrequently must even first undergo an examination.

At the head of each bed in the clinical ward, there is a board with the following inscription;—

NOMEN MORBI.

Nomen ægroti.	Ætas.	Tempus, per quod laborav. ant. admiss. in nosocom.	Remedia.		Regimen.
			Interna.	Externa.	

In several clinics, an account of the principal symptoms, &c. is added.

The clinical instruction is delivered in the following manner:—At the appointed hour, the professor enters the clinical wards, surrounded by his pupils. If a new patient has been admitted, he immediately proceeds to his bed, and calls upon the pupil, whose turn it is, to examine the patient before himself and the rest of the students. During this examination, the professor constantly bears in mind, that by the clinic the student is to be introduced, as it were, into his practical career. He therefore rigorously insists on a concise, but most accurate examination; he moreover accustoms the student to adopt always a consistent order in his investigation; he convinces him of the uncertainty of our diagnosis, and thus inspires him with the most ardent desire to penetrate into the nature of disease. The student begins with the name, the age, and the business of the patient, he inquires into the diseases under which he previously laboured, into the cause and commencement of the present one, &c., in short, he investigates what he thinks worthy his attention, and necessary for the determination of the diagnosis. During this examination, the professor remains a quiet observer, interrupting it only when necessary questions are omitted, when it becomes prolix and tedious, or destitute of order. When the student thinks he has sufficiently examined the patient, he gives his opinion as to the diagnosis, detailing those characteristic symptoms by which he formed it. The diagnosis being ascertained, he proposes his indications of cure, and founds on them his plan of treatment, into all the particulars of which he enters. These different topics always furnish ample subjects for instructive conversation. In the afternoon the student visits his patient again, if it be an acute case, and any alteration may be anticipated within so short a period. The next day he makes a concise and accurate report of the case, and of the treatment adopted, as well as of the state in which he found the patient at his second visit. He again examines the patient, and then a discussion ensues respecting the changes which have happened, and may require an alteration of treatment. In this manner the clinical course is continued; according to the importance of the case, it serves more or less frequently as the subject of the professor's observations, while the student, who is intrusted with the care of it, continues his visits, as well as his examinations, daily. During the treatment, he keeps an accurate journal in Latin, which, after the termination of the case, is deposited in the clinical wards, after having been read and commented upon by the professor before the class. Should the case end fatally, an examination of the body is made by the student in the presence of the professor and the pupils, and careful minutes taken of the results. The comparison with the diagnosis previously given, the possibility of cure under a different plan of treatment, the various alterations, &c., will in every case give rise to an instructive discussion, under the management of the professor, who in general, during the whole treatment of the case, *rather superintends than acts.*

The great advantages of such a method of clinical instruction are obvious. Besides the extensive information which it imparts to the student, it forms the habits of the future practitioner, and protects him against many errors, which he can hardly avoid, if he proceeds at once from the lecture-room, or even from walking a hospital, to his own practice, from passive intuition to active pursuits.

Although all the clinical cases are under the constant superintendence of the professor, and, properly speaking, entirely treated by himself, the student always feels a superior interest in those which, more apparently than really, are placed under his care; it is, therefore, one of the constant objects of the professor to cherish this interest. The mistakes of the young practitioner are accordingly corrected with as much forbearance as possible; his opinion as to the state of the patient, and his proposals concerning the plan of cure, are not treated with open neglect, and the professor introduces his own plan of treatment, however different from that recommended by the pupil, by way of amendment, rather, than by flatly opposing his authority to the errors of inexperience. I am convinced, and every body who has had the benefit of a clinical education will concur with me, that the attention paid by the pupil to his own cases, is not a little increased by the pleasing idea, that he pursues for the first time his vocation as a practitioner. It depends upon the ingenuity of the professor to carry into effect his own plan of treatment, without checking the zealous interest of the student. These attentions will not appear trifling to him who considers the various mistakes and difficulties, to which the young practitioner is liable, when he first enters his practical career, and which, if pointed out and disclosed in an incautious manner, may easily deter him from pursuing it, and fill him with distrust and despair of success.

Exactness and accuracy in examinations are further most rigidly insisted upon, as the more experienced practitioner but too soon and too frequently relaxes in them. Thus, if the strictness of the clinical professor cannot perfectly guard the future practitioner against this fault, his admonitions will at least prevail upon him to persevere in accurate examinations at the beginning of his practice. Next to accuracy, a strict order and consistency in the manner of examining, is always attended to, which is the more necessary, as the first examinations cannot be otherwise than vague, incoherent and precipitate. The special order in which the examination ought to proceed, will, of course, be very different; sometimes the stages of the diseases affording the best guide, in other cases the symptoms being more properly investigated, according to the anatomical arrangements; as for instance, first, those arising from the vascular system, the pulse, pulsation of the heart, other pulsations, heat, fevers, congestions, hæmorrhages, &c., then those belonging to the nervous system, &c. &c.; in other cases, again, it is evident, at first sight, from what organ all the symptoms proceed, then the state and function of this may be first examined, and afterwards the condition of such organs and functions as are most connected with it, &c.

One of the greatest advantages of the clinic, consists, undoubtedly, in the student's performing all his duties under the superintendence of an experienced physician, from whom he acquires the difficult art of examining, and the habit of exercising his judgment in forming diagnoses, and of founding his plan of treatment on indications. The student not only prescribes the remedies, but details the manner in which they are to be prepared, and explains his views as to their action; he reports the cases under his care, and accustoms himself to keep an accurate journal of them; in short, he begins to act in his professional capacity, but always under the eye of a skilful practitioner, who has the best opportunity not only of guarding him against many errors, common to young practitioners, who have not had the benefit of clinical instruction, but of cautioning him against the usual fault of the experienced, that of following an empirical routine. It may be asserted, that the pupil who has devoted his whole attention to his clinical studies, has important advantages over those who have not enjoyed this part of a medical education, for the deficiency of which, even considerable experience cannot make amends. How much time is lost, before the practioner who is left entirely to himself learns the art of examining, before he begins duly to value the result of it, and to distinguish between similar symptoms? Does he not pass many years of practice in gaining, by his own observation, that knowledge, which the clinical student acquires during the course of his studies? Such are the advantages of the clinic; and it may be readily imagined, that a patient will prefer the young practitioner, who has attended it, to one who has visited the hospitals as a spectator only.

It is evident also, that the comparative view of the various cases, of their different stages, &c., must furnish the clinical professor with a never-failing source of interesting and instructive remarks on every branch of medical science: the course of the examination, the external appearance of the patient, &c., will suggest to the lecturer many observations, which might have been omitted, if the history of the case had been delivered in a lecture-room, and which, being made at the patient's bed-side, will be much more deeply impressed on the mind of the student, who is, moreover, early induced to reflect upon the cases before him, to resort to analogy; in short, to combine observation with reflection. This I consider a very important object of the clinical exercises, and it is the more indispensable, as the practitioner is but too much inclined to confine himself to bare observation and experience, unaided by reflection.

Another great advantage is, that the professor combines, with the clinical treatment of the cases, and with his remarks upon them, occasional examinations of the student on such subjects as they may suggest. He enters into the most minute details, and tries the student's acquirements in all branches of medical knowledge. In short, he embraces every opportunity of making him conversant with all the various and manifold duties of his profession.

Besides these exercises in the clinical wards, the students are allowed to attend the practice of the clinical professor in the hospital; it appears, however, that the observation of such a great number of cases, will be useful to those students only, who have already, for some time, partaken of the instruction in the special clinic.

All that has been said about the medical clinic, of course applies to the surgical and obstetrical; we shall examine the peculiarities of these two species of clinic, after having detailed the manner in which surgery and midwifery are studied.

The lectures on *surgery* are generally delivered in an annual course, which is invariably attended by every medical student. To the operative part of it, a course of operations on the dead body is added. A concise account is given of the history of each operation, with the description of the various methods of performing it, and the instruments employed are exhibited to the students. The operation is then performed by the professor, and after him by the pupils. I need hardly mention, that this course commences with the elements of operative surgery, and the easier operations, with the manner of holding the knife, &c., with simple incisions, the application of the various sorts of sutures, of ligatures, &c., and then proceeds to the more complicated operations. This order is, of course, often disturbed by the subject being more or less fit for the one or the other operation. Every operation is several times performed by the same student, in order to exercise his manual dexterity as much as possible. Besides this course on surgery, its various branches, as ophthalmiatric, the art of bandaging, &c., are separately taught. The lectures on the latter branch are illustrated by exercises on persons hired for that purpose. All these lectures are attended several times by those who intend to practise surgery especially.

It is clear that in the *surgical clinic* the principal attention is paid to the external appearances, these being generally more important than the verbal examination, for the diagnosis. In some surgical clinics it is even made a rule, that in those cases, where sight and touch are sufficient to distinguish their nature, as in various diseases of the eye, ulcers, &c., the student is not allowed to make a verbal examination previous to giving his diagnosis. This practice, which is constantly adopted by Rust, in the Charité of Berlin, certainly tends best to impress the diagnostical appearances on the mind of the student, and accustoms him to judge especially by sight and touch. The necessary operations are performed by the professor in the presence of the class. Those pupils who have for a longer period frequented the clinical exercises, and the operative course on surgery, are intrusted with the performance of the easier operations; in some clinics, as in that of Gräfe, of Berlin, almost all the operations are performed by the older pupils. The professor assists the young operator, or stands at his side and watches him closely, in order to prevent any accident. Moreover, it is obvious that important operations are performed by those pupils only, whose skill and knowledge entitles them to such a proof of confidence from the professor. I attended Gräfe's surgical clinic during about six months, and never witnessed any ill result from the most complicated operations performed by the pupils of this excellent institution.

Midwifery is taught, in a half-yearly course, from four to six times a week. These lectures, which are attended by all medical students, are followed by an operative course on the figure, and the *obstetrical clinic*, which is conducted in the following manner:—

The pregnant woman is admitted into the lying-in institution, from eight to fourteen days previous to the probable time of her delivery; she undergoes a careful examination, the result of which is registered in the comparative tables of the establishment. During the time before her delivery she affords the students the opportunity of making *examinations per vaginam*. Every woman is examined twice a week by about eight pupils, who subsequently must give an accurate account of the state of the genitals and the pelvis, of the child's position, and of the probable time when parturition will take place, &c. The professor then makes an examination himself, in order to ascertain the correctness or incorrectness of the pupils' statement. The great importance of these examinations clearly appears from the undeniable fact, that the student, who for the first time examines a pregnant woman, feels and distinguishes scarcely any thing at all, and that very frequent exercise only can lead him to certainty. It is surprising that in any country persons should be admitted to the practice of midwifery, who are almost entirely destitute of this most indispensable part of medical education, and that ill judged delicacy should be the cause of such a lamentable deficiency. The students of the obstetrical clinic are divided into auscultants and practicants; those belonging to the latter class must have visited the clinic as auscultants for six months. Every birth is attended by two students of each class. When the symptoms of approaching delivery appear, the woman in labour is brought into the parturient's ward, and the four students whose turn it is, are immediately sent for. From that moment they do not leave the parturient till the birth is completed. During the whole process of delivery, the two practitioners afford the necessary manual assistance, while the auscultants are only allowed to examine at proper intervals. From time to time the professor, who always lives in the hospital, or a confidential assistant, visits the parturients' ward, in order to be informed of every circumstance respecting the labour and its management by the students. Should any irregularity take place, the students immediately request his assistance. During all this time the clinical instruction is continued, and the professor always first hears the opinion of the student before he gives his own. The easier operations (in some obstetrical clinics even the application of the forceps and turning) are performed by the students in the presence of the professor. In those clinics where the professor performs the operations himself, the other students are sent for in order to witness it.

At the next visit, which like that in the medical clinic is made daily by the professor and his pupils, the practicant, who has had the management of the labour, gives an accurate report of its whole process, from its first beginning to the expulsion of the placenta. The clinical treatment then proceeds in the same manner as was shown in the description of the medical clinic.

We can assert, that the public is so little prejudiced against those lying-in hospitals, which serve as obstetrical schools, that during the space of a year the student has always numerous cases to attend.

A course on mental diseases, and their treatment, is given in almost every university; visits to the lunatic asylum, and sometimes the clinical treatment of a certain number of cases, serve to illustrate these lectures.

We cannot omit mentioning, that the interest which the pupil attaches to the clinic is not a little increased by the annual publication of clinical reports. To this custom, which very generally prevails at the German universities, the medical public is moreover indebted for the origin of such excellent practical works, as those of Stoll, Frank, Reil, &c., and of the more modern but not less distinguished productions of Clarus, Puchelt, &c.

An adequate number of those students who have duly attended the clinics, are admitted to the *policlinics*. In these, poor patients are treated by students, under the superintendence of an experienced and publicly appointed physician. The patients are distributed amongst the students, who, according to the greater or less importance of the case, are directed to visit them once a day or oftener. At a certain hour daily, the students meet the managing physician, and give an accurate report of their cases and the treatment adopted. The prescriptions and other orders are submitted to the physician, who confirms or changes them according to his views, which he invariably explains to the students. New cases are always visited by the physician himself, in order to ascertain whether the diagnosis of the student is correct. If the young practitioner has the least doubt of his own sufficiency, and if it is a dangerous case, the occasional attendance of the managing physician is requested.

It naturally results from the medical police of Germany, that much more attention is paid to the study of *forensic medicine*, than in this country; the numerous and excellent works published in Germany on this interesting branch of medicine, strongly confirm our assertion. The half yearly lectures are attended, not only by all medical students, but also by the greater part of the students at law. Practical exercises are added, which consist in judicial post-mortem examinations, in reporting medical visa reperta, and their results in point of law, &c.

To these studies of the medical student at the German universities, the *examinations* which he has to undergo previously to his being admitted to practice, are proportioned. They are calculated to enable the examiners to determine, whether the candidate is competent to enter on his practical career or not; and the former consider due strictness so much their duty towards the public, that the rejection of a candidate is by no means of unfrequent occurrence.

The manner in which the examinations

are carried on in the universities of Leipzig and Berlin, is as follows:—

At Leipzig, the student usually, after having studied two years, applies to be admitted to the first examination. For this purpose, he must produce certificates from the professors, of his having attended the lectures on natural philosophy, chemistry, botany, anatomy, physiology, general pathology, and of having dissected. The dean of the medical faculty then gives him three aphorisms of Hippocrates, which he must comment on in Latin. He is then *for four hours examined in Latin, on the above-mentioned branches.*

On his applying to be admitted to the second examination, (examen pro praxi,) certificates are required of his having attended the lectures on nosology, materia medica, therapeutics, midwifery, surgery, and the medical and surgical clinics, with testimonies of the respective professors, that they consider him worthy to be admitted to the examination, *which is also in Latin, and lasts four hours,* Should the candidate not have studied at the university of Leipzig, he must, during four weeks, take charge of two patients in each clinic, under the superintendence of the clinical professors.

These examinations apply to every candidate for the admission to practice, without any regard to the individual branch which he has chosen. If he intends to practise midwifery, he has to undergo *an obstetrical examination, in which he must perform a few operations on the figure.* After this ordeal, the candidate is at liberty to take his degree of doctor medicinæ et chirurgiae, the ceremony of which we omit detailing.

At the university of Berlin, the examinations are still more complicated. No certificates are required from the professors, and all depends upon the result of the examinations.

1. *Extemporale Anatomicum.*—The candidate takes from an urn a ticket bearing the name of some organ. The preparation is then given to him, and after ten minutes he must demonstrate it.

2. *Extemporale Chirurgicum.*—The same takes place with regard to a surgical operation, of which the candidate must detail the indications, contra-indications, the instruments, and various methods of performing it.

3. *Cursus Anatomicus et Chirurgicus.*—The candidate is asked to demonstrate the situs viscerum of one of the three cavities, and then to perform an operation on the dead body.

4. The candidate conducts the *treatment of two surgical* patients under the superintendence of the clinical professor. He keeps an accurate journal, containing the history of each case, the present state, diagnosis, ætiology, prognosis, and the treatment. This is continued for a month, at the end of which the candidate is required to give the diagnosis of ten or twelve cases, and then to show his skill in the application of bandages.

5. The same takes place with *two medical cases* for six weeks. The journal, and the conversation at the bed-side, are in Latin.

6. The last examination (examen rigororum) is on *all branches of medicine.*

7. If the candidate intends to practise midwifery, he must produce certificates of his having attended the obstetrical clinic, and afforded his assistance to two or more parturient women. After having written a short treatise on some obstetrical subject, he undergoes an *examination of three hours on midwifery,* obstetrical operations, on the diseases of women and children, and performs some manipulations on the figure.

In conclusion, the following may be considered as the principal advantages of the plan of medical education in the German universities:—

1. Universality of classical education.
2. The period of four years being constantly allotted for the study of medicine.
3. The non-division of the study of the three branches, and the proper division of their practice.
4. The greater facility afforded to the study of anatomy.
5. The more general study of the auxiliary sciences; as natural history, botany, &c., and the liberality by which the students are supplied with the best means of pursuing these studies.
6. The medical, surgical, and obstetrical clinics, and the extent to which the hospitals serve as medical schools.
7. The poli-clinics.
8. The course of operations on the dead body.
9. The greater strictness of the examinations previous to the admission to practice.

ABUSES AT THE WESTMINSTER HOSPITAL.

To the Editor of THE LANCET.

SIR,—On looking into the 218th Number of THE LANCET, I perceived a letter, written by one of the pupils of the Westminster Hospital, on abuses existing in that establishment, wherein it is stated that all the surgeons, with the exception of Mr. Guthrie, are very negligent in the performance of their duty. That the abuses stated by the writer do exist, I can assure you as a positive fact, and which I have myself frequently experienced, to my very great detriment; but as it is of some importance that a candid and impartial statement should go forth to the public, I am desirous to correct a few inaccuracies which have been stated, whether designedly or inadvertently I do not pretend to say, but I am inclined to attribute it to the latter circumstance. The author of the letter alluded to, has excluded Mr. Guthrie from participating in the gross negligence which he attributes to the other surgeons. Now, upon what grounds this exclusion has been made, I confess myself quite incompetent to understand, for I have found Mr. Guthrie equally negligent, if not more so, and particularly since he has been elected one of the surgeons; and I may also state, that he did not come at all to the Hospital last Saturday week. Shortly after Mr. Guthrie's arrival at the Hospital last Saturday, he called the pupils into the theatre, and having alluded to the letter which appeared in The Lancet, he commented on the impropriety of appealing to public opinion, when an opportunity for personal interview could be obtained, thereby showing a degree of subordination, which should subsist between the pupils and their teachers. He declared, that *as* The Lancet *was not read* by the other surgeons of that Hospital, they would know nothing of the letter, and that he would feel himself exonerated from adverting to it, in order to redress the grievances complained of, till some of the students would have the candour to come forward and state, that the instruction imparted was not sufficient to acquire the information necessary for examination, as such a mode of procedure obliged them to sacrifice some of their lectures. I beg leave to inform Mr. Guthrie, that as the surgeons have been the aggressors in this transaction, the pupils have a right to adopt whatever mode of procedure they may consider most likely to obtain their just rights; and as Mr. Guthrie is now aware of the grievances complained of, it is a duty he owes to the pupils, to have them redressed. In conclusion, I may state, that if the surgeons continue to be negligent in the performance of their duty, the pupils will appeal again and again to the Governors of the Hospital, and to the public at large; and although the pupils may not obtain the desired object, they will confer a great favour on those gentlemen who come up to town to enter to the Hospitals, by warning them of the infamous manner in which the surgical department of this Hospital is attended to.

I remain, Sir,
Your obedient Servant,
Amicus Justitiæ.

Nov. 5th, 1827.

ROYAL INFIRMARY, EDINBURGH.

"*Letters from the Army, Navy, and East India Medical Boards, to Dr. Ballingall.*"

Modern times have witnessed the institution of a variety of new lectureships, that profound English maxim, "a division of labour," having been alike extended to the cultivation of medicine, as to the improvement of our manufactures. The principle has been acted upon, as well by the heavy machinery of universities, as by the portable establishments of itinerant professors, who philosophically traverse the empire, to teach its studious inhabitants a whole science in half a dozen of discourses. The imitation of the great secret of our commercial superiority, has not been confined to the more useful parts of the system; for, along with the several parts of the human body, and the diseases to which they are subject, being committed to the investigation of individual talent, the collective wisdom of our colleges, forgetful of the salutary effects of competition and free-trade, have thrown a sympathetic glance over the policies of Mr. Vansittart's tariffs, and imposed protecting duties for the encouragement of the infant productions of our didactic operatives. In many instances, perhaps, advantages have been derived to the public, from the exclusive attention of individuals to particular branches of the healing art; though it may be observed generally, that the greatest discoveries have been made by men who taught, practised, and held the unity of the science. As it expanded, however, into its present formidable dimensions, it became necessary, or at least convenient, to intrust the tuition of its parts to separate hands; and no fault could be found with the practice, if the experiment were left to stand or fall by its utility or worthlessness. Midwifery, medical jurisprudence, physiology, and some other departments of the science, have fully justified the propriety of treating them in separate courses of lectures, by the remuneration which they voluntarily secure their teachers; but like most good things, the sub-division of medicine has not only been carried to excess, but the abuse has been committed for purposes totally foreign to its advancement. The University of Edinburgh, under the pretence of keeping pace with the progress of the age, and under the sanction of the useful tendency of divided exertion, has, in particular, dealt most extensively in this vice of medical schism and its profitable consequences. Suspecting, as well it might, the probability of its newly-created lectureships being sufficiently emolumentary to the proprietors, or rather convinced by experience, that they were not so, the Senatus Academicus, with that diplomatic tact which characterises all its proceedings, contrived a very ingenious device for rendering these neglected professorships productive to the professors. From six tickets, formerly necessary for graduation, that sagacious council has raised the number, by positive law, to eight, and from eight to ten by indirect arrangement; so that, while the student is left the appearance of a choice, he is in reality compelled to attend at least two out of the five remaining courses of lectures, which have been from time to time instituted, but some of which would not repay the deliverers for the expense of publishing a prospectus, if left to the patronage of their own merits. When custom has habituated the rising generation of surgeons and doctors to this species of exaction, and compulsion ceases to excite surprise, it is not at all improbable, judging from experience and the tendency of self-interest, to despise all distinctions of right and wrong; but these five courses, which are sufficiently well known, without being named, will be made indispensable to the taking a degree of doctor of medicine in our University. The great misfortune of these financial schisms for the improvement of medical education, is that, however plausibly they may be disposed for public inspection, the eye of any attentive observer must immediately detect their ultimate object through their inconsistency:—

You may break, you may ruin, the vase if you will,
But the scent of the roses will hang round it still.

Thus, in permitting the student to attend but two out of these five different courses of lectures, it must be supposed, that the persons by whom this privilege of selection was granted, must, from the nature of the arrangement, have considered each of these lectures equally valuable with the others, and that the student could not consequently err in his choice; but if they are all alike useful and necessary, why, instead of two, are not the whole five included in the compulsory enactment? If medical jurisprudence and military surgery be wholesome and indispensable accomplishments to a practitioner, surely he should not be allowed by the spiritual guides of his education, to avoid such valuable acquisitions, and to substitute in their place, two courses of natural history and clinical surgery. Yet such is the fatal gift of free-will to the student, by the providence of the Senatus Academicus, that though he may be destined to figure in the ambulance or the cock-pit, he is endowed with the deleterious power of accomplishing his own professional perdition; and instead of preparing himself for his future duties in life, by attending Dr. Ballingall, the lost son of Esculapius may turn into the dissecting-room, and idle away his precious hours at a three months course of practical anatomy! The inconsistency can only be explained by the observation already made, that the University finding these lectureships not sufficiently profitable to the proprietors, and pressed by them for the imposition of protecting duties, the Senatus compounded with the whole five, thus giving each a choice of existence. Dr. Ballingall not well satisfied with a chance market for his intellectual wares, has hit on an extremely ingenious expedient of securing a steady sale for them; and though not absolutely amounting to compulsion on the purchasers, it leaves them pretty much the traveller's alternative, when ordered to "die or deliver" by a foot-pad. In crossing the hall of the Royal Infirmary a few days back, my attention was attracted by a conspicuous placard elevated above its modest companions, and stopping to examine its lofty pretensions, I found it to be the syllabus of a course of lectures on military surgery by this gentleman. On reading over the heads of these lectures, purporting to reveal the history of military surgery! the examination of recruits! the detection of feigned diseases! the treatment of ulcers on soldiers' legs! the management of complaints incidental to warfare by land or flood, I stumbled on the words, James M'Gregor; and not conceiving at the moment what connexion could exist between a course of lectures in Edinburgh and that gentleman in London, I really thought the name might have been intended to designate some Highland malady, discovered by the learned professor, and intended for elucidation during the ensuing winter. But no, I was quite mistaken: James M'Gregor was not a pathological discovery, but the signature of an answer from the gentleman of that name, to a letter from Dr. Ballingall, and stating in a few lines, that it was only of late that he had been made acquainted with the merits of his lectures on military surgery; and that, in the next alteration of the *curriculum* of the army Medical Board, they should not be forgotten, which of course means, that they will be made indispensable qualifications for appointments in the service. I could make no more mistakes about names, so I read on and found another, W. Waller Clifton, attached to a similar production, stating, that an attendance on these lectures would be considered additional recommendation to candidates for the navy department; and to crown the whole, I found the names of eight or ten superanuated, half-pay, East India Company medical officers, who, I suppose, attended Dr. Ballingall's lectures *gratis*, appended to a still more glowing panegyric of the excellence of the Doctor's discourses on examining recruits. The publication of these letters furnishes a satisfactory explanation of the manner in which the qualifications for official situations in the army and navy service, are arranged by the constituted authorities. A practitioner has served some time abroad, examining recruits, and treating ulcers on soldiers' legs; he returns home, elaborates a medical romance out of his military adventures, and is appointed to recite it under the great sanction of a university professor; but finding that an audience will not voluntarily attend his prelections, he turns the tables on their tasteless obstinacy, and immediately writes to his veteran companions to arm in his cause; their sympathies instantly awaken in behalf of his neglected merits, "auld lang syne," and the grog of other days, smother all "compunctuous visitings," on the justice of the appeal of an old brother officer, and letters, equivalent in effect to martial law, are written and published, for the purpose of compelling candidates for office to attend his lectures, under penalty of forfeiting all claims to promotion at the several medical boards. Dr. Ballingall may indeed succeed in intimidating a few pupils into obedience by these paltry threats and recommendations; but to the discerning part of the profession, they afford the most incontestible evidence of the total worthlessness of his lectures, for were they worth attending, such measures would be unnecessary to ensure them support. There is, in fact, no foundation in science or reason, for the existence of the chair from which he derives his empty, but high-sounding title. The diseases to which soldiers are subject, are those which are common to the rest of mankind, and they consequently require no other treatment than that which flows from a knowledge of the common principles of the healing art, for surely the carriage of a musket or a knapsack, does not so far alter the physical constitution of man, that the same system of surgery which heals a burgher, may not be so far modified, by individual skill, as to relieve the maladies of a grenadier. But, even admitting that there may be morbid peculiarities incident to a military life, and that some general observations may be necessary for the management of troops, are not our ordinary professors of surgery competent to the delivery of such instructions; do they not almost invariably, in their surgical lectures, give such remarks, when the subject suggests such digressions; and is it not a matter of the most perfect indifference, how or where, the candidate for a situation in the army acquires this information, provided he proves himself possessed of it by an examination? I would be glad to know from Sir James M'Gregor, or from Mr. Waller Clifton, or from the Bombay gentry, who have warranted the excellence of Dr. Ballingall's lectures in the style of a quack medicine, upon what principles of equity or reason they would compel a medical student to set out on a pilgrimage to Edinburgh to acquire information, which in all probability he had learned at home, in Dublin or London? Yet we have four colleges of surgeons, half a dozen of universities, and I know not how many apothecaries' companies, who permit, without a shadow of resistance, their licentiates and graduates to be re-examined by army and navy medical boards, and their pockets picked by the preceding and contemptible charlatanry.

SCOTUS.

Edinburgh, Nov. 3, 1827.

OBSERVATIONS ON DISLOCATIONS OF THE THUMB.

By HENRY PENNECK, M.D. Penzance.

I HAVE observed in one of your late Numbers, (vol. xii. p. 618.) that M. Lisfranc presented a preparation to the Royal Academy of Paris, in which there was observed an old dislocation of the first phalanx of the thumb, on the posterior surface of the bone of the metacarpus.

I am induced to remark, that though such great improvements have been made in surgery in our own times, the common treatment of dislocations of this kind still continues entirely unsatisfactory. This will be apparent to any one who will examine the latest and best authorities on the subject. To lose the service of so useful a member as the thumb, by abandoning the case, seems a trifle when compared with the chance of having the limb torn away, an accident which it would appear has happened, and if the power of the pulley should be applied to so small a part by unskilful hands, is not unlikely to happen again. I shall at first confine my remarks to dislocations of the second phalanx. The method commonly proposed for the reduction is to bend the dislocated bone over the first phalanx as its fulcrum even without the power of making a sufficient previous extension. But, although the phalanx may be displaced in four directions, this method is only applicable to one case, and even in that it must be attended with bad effects; for by compelling the dislocated bone to make a large sweep, the capsular ligament must be put greatly on the stretch; and in a case of a compound dislocation, which I am about to mention, such a practice might have so far increased the rent in the capsular ligament and integuments as to have rendered the amputation of the phalanx necessary.

Above forty years since, when an apprentice, I was sent to William Nicholls, a young farmer, residing at Boskennan, six miles from Penzance, who carrying a heavy basket was thrown from his horse. I found his left hand severely bruised, the *second* phalanx of his thumb dislocated on the back of the first, and the joint laid open by a wound in the integuments and capsular ligament. After vain attempts to make an extension which the shortness of the part prevented; I hit on the following method, which fully answered my expectation, and I have since practised it with complete success. I took a piece of bleeding-tape and tied the middle part of it round the *first* phalanx, *letting it cover a part of the end of the dislocated bone*, and having the knot on the opposite side, I twisted both parts round my hand, and directing an assistant to support the patient's hand and fix the thumb, I made the extension and found the dislocated phalanx to pass readily into its place, when the tape slipped off and the operation was completed. I dressed the part superficially, which was soon healed; I do not recollect the after treatment. He resides at Plymouth; but is at present at Penzance. I have seen him to-day, examined the phalanx, which is well in its place, and though the joint is stiff, he has a useful thumb to this time. I think some other cases came under my care, of which I neglected to keep notes; but in January, 1809, Mr. Carne, of the Penzance Bank, was thrown from his horse, and dislocated the second phalanx of his left thumb. I saw him as soon as he returned home, there was no wound, and I reduced it by the use of the tape in an instant; by the common treatment it soon got well, and is as perfect as ever. I must observe, that if it had been a dislocation of the first phalanx, I should have applied the tape on the metacarpal bone. This method appears to me far better than pressing on the dislocated bone by the fingers, or bending it by the thumb; because by the tape the force is always applied in the right direction, and it carries the displaced bone straight on clear of the first phalanx; besides, it never distresses the joint by making a greater extension than is required to pass the bone into its proper place; whereas the other method of pressing on the phalanx by the fingers has a tendency to fix it on the back of the first phalanx, and to retard the reduction.

About seven years since I slipped off a hedge, and pitching my left hand on the ground, I dislocated laterally the second phalanx of my middle finger towards the little finger; as soon as I got home I procured a piece of bleeding-tape, had the middle of it tied round the first phalanx immediately in contact with the dislocation, and having spread out the tape so as *in part* to cover the end of the dislocated bone, the knot being made on the *opposite* side, I directed a person to twist the ends round his hand, and to make an extension whilst I resisted him, and with my right hand supported the part, and gave direction to the finger, which was instantly reduced, and with scarcely any pain. The part quickly got well, and is as perfect as ever.

In November, 1825, I was called to Mr. William Hawes, of the Star Inn in this town, who had dislocated laterally, towards the little finger, the ring finger of his right hand. I immediately reduced it in the same manner by the use of the tape, and it continues as well as ever; when the dislocated part is much bent the knot may be inconvenient if tied immediately opposite, unless the parts of the tape are kept sufficiently asunder by the introduction of two fingers, which, while the extension is making, will allow the dislocated part to rise up between them.

After the four cases which I have been enabled to state, I can with confidence recommended *this method* to the profession as *certain to reduce every case of dislocated thumbs, fingers or toes, in whatever direction the phalanx* may be *displaced*, with the *greatest facility*, and with *very little pain* to the patient.

I beg leave to suggest that the same method which I have used in reducing dislocations of the smaller, appears likely to be of use in assisting in the reduction of dislocations of the larger, joints. It may be advantageously applied to dislocations of the wrists, and to those of the knee-joint, in addition to the usual mode of making an extension; and even in some cases of dislocations of the thigh bone it seems very possible to use it with advantage, in addition to the methods so scientifically recommended by Sir Astley Cooper.

If we take a four-tailed bandage, and to prevent it from slipping apply two of the straps round the body under the spine of the ilium, and above the head of the dislocated thigh-bone, and cross them on the opposite trochanter, to be held by assistants, and bring down the other straps round the hip and fasten them to each other between the thigh and the pudendum; a pulley may be placed on the thigh, and whilst an extension is making, as soon as the strap can be brought to act on the trochanter of the dislocated bone, the pulley may be hauled in the proper direction, which will assist in bringing the head of the thigh-bone to the acetabulum.

I would also draw the attention of the

profession to compression of the muscles as a mode of taking off or lessening their resistance to extension in cases of dislocation. It appears to me that the muscular fibre must always increase in thickness in proportion as it shortens in length. If we apply the hand on the biceps flexor cubiti, when the fore-arm is forcibly raised, or on the masseter when we strongly act with the jaw, we shall be sensible of the effect I have mentioned, and which I believe to be universal. When therefore a dislocation is about to be reduced, the reduction will be greatly facilitated by first placing the limb in a state of semiflexion, and taking off the action of the muscles as much as possible by the *will*; and then by compressing the muscles by means of a roller firmly applied on the limb we are about to extend, and by another roller, or other means, on the part from which the extension is about to be made, so that all the flexors and extensors, whether they arise from the first and are inserted into the latter, or whether they arise from the latter and are inserted into the former, by being prevented from increasing in thickness, may also be prevented from shortening, and consequently from opposing the reduction of the dislocation.

Penzance, Oct. 26th.

ON UTERINE HÆMORRHAGE.

By George Nesse Hill, Esq. *Surgeon, Chester.*

Nearly half a century ago I commenced practising as an accoucheur, and one of the first lessons taught me was, to devote constant attention to three circumstances in every natural labour, namely, when the child's head was pressing firmly against the perineum, (and especially in first labours,) not to use counter-pressure with the slightest violence, but merely to afford moderate support with the palm of the hand; the injurious practice of introducing a finger between the head and the perineum to slip, and but too often tear the latter over, the former being so common a practice with the old midwives, that my instructor said he could always tell, when called to a female in a second labour, whether a male or female practitioner had attended on the first. The second circumstance was, that if opportunity occurred, to advise the pregnant female to prepare a flannel under coat, with a firm band at the top, of such a breadth as would, when drawn tight and secured with suitable tapes behind, cover the whole abdomen from a little above the umbilicus to just *above*, not on the pubes, the tapes so fixed as to admit of tightening or slackening, as occasion required. When suddenly called, or where no such bandage had been provided, the readiest substitute is the spread hands of an attendant, properly placed over the uterus, at the moment of the exit of the child; and where, in defiance of these precautionary measures, the hæmorrhage occurred suddenly and profusely, a firm unyielding compress was introduced beneath the bandage, or hands, till it was checked, the bandage and compress being tightened in proportion to the urgency of the case and the feelings of the sufferer, especial care being taken that the pressure be as equally applied as possible. For want of attention in this respect, it has been imagined that the hour-glass contraction of the uterus has been promoted.* The third circumstance demanding attention was to be directed to the child, making it an indispensable rule never to divide the funis until all pulsation in it had entirely ceased; for want of attention to this rule many fine children have been lost, owing to the extreme ignorance of the females in attendance before the proper assistance could be had, imagining that the moment a child is born it should be separated from its mother. Many years after this injunction, I was called too late to a poor countrywoman, when, upon entering the room, I saw a stout-looking child lying dead on the bed, without a ligature on the funis; the placenta yet undelivered. On finding the cut funis, I perceived it had been most carefully tied!!

By an habitual attention to these long-established rules of my excellent preceptor, I have never lost a patient by hæmorrhage, or witnessed more than a very few cases of extreme danger.

You will, Mr. Editor, not be surprised that I should smile at the eagerness manifested by such a number of respectable claimants to the valuable discovery of mechanical pressure of the uterus, on the removal of its contents; of their various pretensions, or the due regulation of their several claims, it would ill become me to say one word, I only wish to show that these claims have no just pretensions to novelty or originality. Dr. W. Dennison, in his valuable lectures on midwifery, delivered at the London Hospital in 1784-5, advocates the same plan of proceeding in all labours, so far as regards uterine pressure, as what I have stated, with this only difference, he recommends a strap bandage to be fixed to the upper part of the under flannel coat.

Chester, 24th October, 1827.

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* The bandage has another good property; it tends, when worn for the lying-in month, to prevent the pendulous belly, so often a cause of protracted labour, and so unsightly to females who have ceased to be mothers.

WINCHESTER COUNTY HOSPITAL.

To the Editor of THE LANCET.

SIR,—As certificates of provincial hospital practice are now received by the London College of Surgeons, (though at present under impracticable limitations,) it has appeared to me proper that the medical world should know how unprofitably to the student the surgical practice of this Hospital is conducted by our senior surgeon, Mr. Mayo. This gentleman, whenever he comes to the Hospital at the ordinary time, that is, between ten a.m. and one in the afternoon, most frequently enters by the lower door of the Institution, (intended for and used by the patients, servants, &c.) in order to escape the observation of the pupils, which he could not do were he to enter by the front door. So great an aversion, apparently, has he when going round the Hospital to the company of the pupils, that he often *runs* from one ward to another, and shuts the door of the ward he has just entered in the faces of the young men following him, and this more particularly when he happens to have any interesting case under his care which requires dressing.—Very frequently is he to be seen at the Hospital before eight o'clock in the morning, whereas no other surgeon, except on emergencies, thinks of attending before ten. Some few weeks ago there was a patient in the house with ovarian dropsy, but who is now dead, whom he successively tapped three or four different times, before eight o'clock, a.m., in the presence of one or two of his own pupils only. But his ill judgment in this respect is, I am sorry to say, surpassed by his unjust predilection for one or two individuals; as an instance of the latter the following may be cited:—Not many days ago he used Weiss's speculum uteri on a patient in the venereal ward, who, from the ward she was in, was naturally supposed to have some venereal affections; the two other surgeons were, at his request, present, beside the house-surgeon, the junior hospital apprentice, and an apprentice of Mr. Wickham's. The senior hospital apprentice went into the ward, expecting to see the instrument used, but was immediately ordered out by Mr. Mayo.—Now, without adverting in any manner to the *right* that he, and, in point of fact, both the hospital apprentices (who pay their præmia in part to Mr. Mayo) have to witness *the whole* of his practice *in the Hospital*, was there not partiality shown in ordering the senior to leave the ward, when no objection had been previously made by him to the presence of the junior? and was justice administered towards his own apprentices in excluding them! Surely as he performs even the slightest operation, dressing, &c., in the Hospital *himself*, it would be but fair and just to let them *see* every thing he does. Fortunately for the interest of the pupils, the other two surgeons, though his juniors in office, do not imitate his example, but, on the contrary, their manners and conduct towards the pupils are, generally speaking, totally different. Sir, if you can spare a niche in your LANCET to contain this letter, you will not only make Mr. Mayo stare, but it will also be of great service in exposing (though, I fear, not in correcting) these abuses, and will confer an everlasting obligation on

Your most obedient servant,

WINTONENSIS.

October 24, 1827.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

CASE OF SLOUGHING SYPHILITIC BUBOES, SHOWING THE ADVANTAGES OF THE "SOOTHING PLAN" OF TREATMENT.

J. R., ætat. 42, was received into the hospital a fortnight ago, for a syphilitic sore, situated on the prepuce, accompanied with two extensive, and very foul irregular cavities in the groins. The surface of each excavation, which extended to a great depth, was covered by a slough apparently of much thickness. Their edges were swollen, irregular and everted, and the surrounding integuments to a very considerable extent, were of a deep red colour, and highly painful. The sore on the prepuce was superficial and large, but had the appearance of the true Hunterian chancre. It yielded a small quantity of pus, and seemed to be healing. None of the inguinal glands in the neighbourhood of the ulcers were enlarged. From the inguinal sores he suffered constant and occasionally very acute pain. His general health was much affected. His pulse about 110, sharp—he complained of headach, nausea and thirst. His skin was dry and hot, and he exhibited all the common symptoms of febrile derangement, in a very marked degree.—He stated, that nine weeks ago he became affected with a chancre in the situation of the present sore on the prepuce, which, in a week after, was followed by the appearance of the buboes. These were remarkably inflamed, and proceeded rapidly to suppuration, and three weeks after were discharged. He continued to work, and paid little attention to his complaints.—The sore on the penis had remained stationary, but the buboes, within the few days previous to his admission, had become remarkably painful, owing, as he admitted, to his free living. He had taken no medicine except an occasional purge, and had never been affected with any disease of his genital organs, previous to the occurence of the present—nor had he ever been salivated by mercury.

He was ordered to be bled to deliquium animi, to have a smart purgative, and a large dose of opium at bed-time.—Poultices and fomentations to the sores.—Low diet.

The morning after this treatment was enforced, the change in the appearance of the ulcers was striking; the surrounding inflammation had greatly disappeared, the pain was allayed, the sloughing seemed not to be extending, and the constitutional disturbance was very much dimished. The opium was continued nightly, with the same general regimen. He continued to improve; in a few days the sloughs were thrown off, and granulations appeared beneath. For about a week the ulcers diminished in size, and seemed to be healing, though slowly, but this improvement now ceased to go on, and they remained stationary.

The blue pill was at this time prescribed, four were taken in as many successive days, and the callous edges of the ulcers were freely pared off.—On the 5th, the sores looked ill, and next day had become inflamed; and although the mercury was immediately withdrawn, the inflammation proceeded rapidly to sloughing, and the inguinal excavations were speedily in as bad a state as on his admission.—He was once more bled to deliquium animi, and the large opiate again prescribed, and with marked benefit, for the sores have again assumed a healing appearance.

In this patient, who was of a singularly irritable and delicate habit of body, the employment of mercury produced a very sudden and pernicious effect, and the benefits of "the soothing plan of treatment," as it has been denominated by Mr. Lawrence, were well exemplified. This method of treatment has been employed in this hospital, more particularly for patients of an irritable constitution, in every variety of syphilitic disease, and has been attended with very considerable success.—In St. Bartholomew's Hospital, we believe it has received from Mr. Lawrence a very full trial.

CASE OF EXTENSIVE SYPHILITIC AFFECTION OF THE LABIA AND ANUS.

Mrs. S——, ætat. 22.—Each labium is much swollen and inflamed. In its mucous membrane, and that of the nymphæ, are several very extensive ulcerations, with everted, irregular, and highly vascular edges. These ulcers have the appearance of the Hunterian chancre. The integuments of the perinæum are likewise in a very diseased state, being swollen, thickened, and of a livid colour, but not ulcerated, except in the immediate vicinity of the anus. Around the latter, and projecting from the rectum, are a great many cauliflower excrescences, of irregular shape and size, and of a spongy and very vascular structure. Besides these, there are seen several small tumours resembling in appearance piles, the whole forming a congeries of foreign bodies completely filling up the outlet of the great intestine. The skin in the vicinity of the anus is likewise much diseased, and at many places ulcerated and excoriated. The sphincter ani at one point seems to have been divided, as a wound still remains at the side of the rectum, which communicates with the cavity of the intestine.

Her general health has suffered considerably from the constant irritation and inflammation of the diseased soft parts, and she has consequently become weak and somewhat emaciated, but she has no symptoms of a constitutional venereal taint. Her throat is sound, and no where in her skin can there be discovered any trace of a syphilitic eruption.

She reports that for the last four years she has been troubled with piles to a very great extent; these induced the formation of an abscess, which, two years since, degenerated into a fistula; for the cure of which, an operation was, soon after, deemed advisable. The wound, however, consequent on this, did not heal, and soon after she was admitted into St. George's Hospital, where she remained eighteen weeks without receiving any benefit. Two months ago she became affected with a syphilitic sore, which was followed by many others. The perinæum soon became diseased, and the ulcerations and cauliflower excrescences growing from the anus gradually formed.

The case, which has been treated with small doses of a solution of oxymuriate of mercury, in conjunction with opium, exhibits an instance of extensive disease of the perinæum, anus and rectum, from their vicinity to the venereal sores in the vulva, which seems to have spread solely by contact. It is rather wonderful that a syphilitic affection of such extent should have existed so long without producing a single constitutional symptom.

CASE OF SUBCUTANEOUS NÆVUS MATERNUS OF THE LIP.

A healthy boy, about seven years of age, was brought to the hospital with nearly the whole of the upper lip in a very enlarged state. The swelling extended from the right angle of the mouth to within an inch of the left. The mucous membrane was projected outwards, and the disease reached up to the right ala nasi, which was pushed upwards.—The integuments were a little more vascular than natural, but very little, if at all, diseased, while the mucous membrane was perfectly healthy.

The cellular structure, which is situated between the skin and mucous membrane, was evidently the seat of disease. It was much thickened, and afforded a more solid and fleshy feel than when in a sound state.—The enlargement did not possess the slightest pulsation, but could by pressure be emptied of a portion of its contents. The coronay arteries were felt to be pulsating with remarkable vigour; but when the circulation in them was arrested by pressure, no change was produced on the size of the lip.

The disease, which was congenital, and had gradually increased in extent, had never been attended with any bleeding. It produced much inconvenience and deformity.

In this case it was proposed to attempt to remove the disease, which was almost entirely confined to the subcutaneous structure, by surrounding it with ligatures introduced through the mucous membrane, which would, if the operation succeeded, preserve the natural form and appearance of the lip externally. The boy, however, left the hospital, and has not since returned.

GUY'S HOSPITAL.

CASE OF TETANUS FOLLOWING THE DIVISION OF CICATRICES, CONSEQUENT UPON A BURN.

The following case of tetanus, supervening the division of cicatrices of long standing, and the result of a severe burn, has excited much interest. The tetanic symptoms, it will be seen, came on three weeks after the performance of the operation, and at a period when the wound was granulating, and in a very healthy condition; the disease ran its course uncontrolled by the means employed, and proved fatal on the ninth day.

The patient, a spare female, 15 years of age, and of light complexion, was admitted into Mary's Ward on the 5th of September, under Mr. Bransby Cooper. She had been severely burned when about three years old, and in consequence there were contractions of the skin, both at the anterior and posterior fold of the axilla, which in some degree interfered with the motions of the arm. At a month after admission, an operation was performed by Mr. Cooper, which, in fact, consisted simply in the division of the parts. About three weeks afterwards, on the 14th of October, and when, as we before stated, the wound was in a healthy condition and healing fast, she complained of stiffness at the back of the neck, which she attributed to cold. On the following day, Monday the 15th, the stiffness had somewhat increased, and was attended with some pain, and on Tuesday the particular attention of the dresser was called to her; the bowels at this time were constipated, there was much rigidity of the muscles of the neck and those beneath the jaw, and the mouth could only be opened to a short distance. A purgative draught was prescribed to be taken every three hours, and a pill, composed of tartar emetic, opium, and calomel, ordered to be taken every six hours. In the evening a purgative enema was administered. On the following day, the 17th, the symptoms were further aggravated; the pulse was very rapid, and there was general spasm of the muscles. A warm bath was directed, and the antimony and opium continued, the calomel being omitted. Hemlock poultices were applied on the day previously, and these were continued.

On the 18th, the poor girl was in a most distressing condition, all the symptoms of tetanus existing in a high degree; the warm bath afforded slight relief. Half a drachm of laudanum was exhibited, which in some degree appeared to lessen the violence of the symptoms; subsequently the dose was repeated twice, without any manifest effect.

On the 19th and 20th, the poor girl continued in a most distressing state; the slightest excitement bringing on the most violent spasms of all the muscles of the body; the pulse was very rapid and skin moist, and these symptoms prevailed in a remarkable degree throughout the disease. Æther was now frequently exhibited, and on the 20th a turpentine enema was exhibited, the bowels not having been freely acted upon since the attack.

On the 21st, a blister was applied to the pit of the stomach; the symptoms, if possible, had increased in violence, and the poor creature was now incapable of taking either medicine or nutriment. She continued in this state throughout the following day, and until about eleven o'clock of Tuesday morning, the 23d, when she died, being perfectly sensible, as indeed she had been, throughout the entire progress of the disease.

The friends would not permit the body to be examined.

THE LANCET.

London, Saturday, November 17, 1827.

We call the attention of our readers to an account of the system of medical education pursued in the German Universities, which has been transmitted to us by Dr. Kind, a German Physician resident in this metropolis. It is written with great perspicuity and intelligence, and will be read with interest at a moment when a reform of the scheme of education, which has so long disgraced the medical profession in this country, is called for with a voice too powerful to be successfully resisted by the oligarchy who are interested in maintaining existing abuses. We have not time to enter this week into a detailed examination of Dr. Kind's paper; but we may observe, in passing, that the German system of education, though upon the whole incomparably superior to the course of medical study prescribed in this country, is not altogether untainted with a leaven of absurdity, which pervades most of the ancient academical institutions throughout Europe. At Berlin an attempt seems to have been made to get rid of the system of certificates, and to make the admission of students to the practice of the medical profession entirely dependent on the result of their examination. In other universities, however, the candidate is compelled to produce certificates of his attendance on certain courses of lectures, at his examination. Now it is evident that the examination of the candidate for a medical degree, is either a sufficient test of his competency without such certificates, or it is not. If it be, of itself, a sufficient test of his competency, there can be no necessity for enforcing the production of certificates; if it be an insufficient test, the production of such certificate affords not the smallest additional security for the candidate's competency: for there is no instance, we presume, in which a professor ever refused to grant a certificate of attendance on lectures to a pupil who had paid for the privilege of attending them. In fact, where a professor's class is large, it is scarcely possible that he can be cognizant of the presence or absence of a particular pupil, and the certificate is evidence only of the fact of his having received a certain sum from a student who may or may not have attended the course.

As a proof of the superiority of the German system to our own, we need only refer to that part of Dr. Kind's communication which falls under the head of clinical instruction. Let the reader contrast the care and diligence with which the German professors watch over the progress of their pupils, and gradually initiate them into the practice of their profession at the bed side of the patient, with the manner in which most of our English professors perambulate the hospital wards with a score of breathless pupils at their tails. It will be seen that one class of German teachers, namely, the botanical professors, occasionally *walk the fields* with their pupils; a trait of simplicity which will probably afford as much amusement to our privileged professors, as the English scheme of walking the hospitals excites astonishment among our brethren of the continent. In justice to the German teachers, it must be admitted that they rarely undertake to impart knowledge which they have not themselves thoroughly acquired, and that they perform their duty with a conscientious zeal for the advancement of their pupils. We are the more disposed to render them this justice, because we are aware that there exist in this country many unfounded prejudices against German professors, and the German schools of philosophy. Germany has been represented as the hot-bed of empiricism and scepticism; and as the nurse of all manner of false pretenders to philososhy and science. The manner in which the founders of the system of phrenology were assailed by an influential part of our periodical press, may be cited as an example of the spirit in which currency has been given to impressions unfavourable to the philosophers of Germany. Many parts of the system of Drs. GALL and SPURZHEIM were no doubt sufficiently vulnerable, and might even afford fair matter for ridicule; for we admit that ridicule may be legitimately employed as an auxiliary of reason in the detection and exposure of error. But it was not so much the system as the authors of it upon whom a writer, whose wit is generally found happily combined with reason on the side of truth, condescended on this occasion to pour forth all the phials of his sarcastic wrath. Drs. GALL and SPURZHEIM were held up to public scorn, as impudent impostors and interlopers in a field of science with which they were utterly unacquainted. Now, whatever may be the errors of the system of phrenology, the charge of ignorance made by the Edinburgh reviewers upon the authors of it was at any rate most unfair and unmerited. If physiologists know any thing of the anatomy and physiology of the brain, they are indebted for their knowledge to Drs. GALL and SPURZHEIM, whose great work on that subject contains a mine of valuable physiological observations, which, laying out of the question the soundness or fallacy of the conclusions deduced from them, may be explored with advantage by those who are most opposed to the peculiar views of the writers. We have been led further than we intended into this part of the subject; but shall return at an early opportunity to an examination of Dr. KIND's paper, and of the general question of medical education.

ALTHOUGH the medical ranks equally high with the other liberal professions, yet its members, as a body, until lately, have not enjoyed what could be denominated a political existence. This extraordinary circumstance may, in a great measure, be accounted for by their almost unanimous exclusion from all offices of dignity, responsibility and wealth.

The church has its bishops, with dioceses of enormous revenues, and its thousands of fat rectors, with their rich rectories. The law has its chancellors, vice-chancellors, judges, attorneys and solicitors-general, colonial judges, and their subordinate-officers, masters in chancery, police-magistrates, commissioners of bankrupts, with many others, too numerous to mention. Such is the ample reward which awaits those who may distinguish themselves in the church or in the law; whilst, in medicine, the height of a man's ambition is, to be appointed either as physician or surgeon to a hospital, with a salary of *forty pounds* a year; or to receive a similar appointment at an infirmary or dispensary, without any salary at all. Thus situated, it is not surprising the mass of the public should view the profession of the law, and that of the church, with a more respectful eye than that of physic, because wealth and patronage are two prolific sources of deference.

When it is recollected, that in the House of Lords we have the Lord Chancellor, the Archbishop of Canterbury, with a host of ex-chancellors, lords who sprang from lawyers, and a dozen or so of bishops; who can consider it extraordinary that the pulpit and the bar should be protected with unceasing care. In the House of Commons, too, lawyers invariably possess great, we may almost say, unconstitutional influence; and if any office of importance become vacant, a lawyer is sure to have his foot on the step, before others are aware that a vacancy has occurred. Are then the public interests best guarded, by conferring on the members of the church and the law such vast dignity and wealth, to the contumacious neglect of the members of the medical profession?—We think not, and believe that this opinion will become general, when the subject shall have received that consideration and discussion, which its importance deserves. Surgeons and physicians are not even allowed to preside in establishments which are avowedly devoted to professional objects—thus the "Navy *Medical* Board" includes but *two members* of the medical profession, although consisting of seven persons. It is not insinuated that the duties of this establishment are inadequately executed, because we believe the fact to be otherwise; and merely advert to it as an instance of the indifference with which the interests of our profession are regarded at head-quarters; and to show, that medical men are not allowed to occupy even those offices that are avowedly medical.

But we are anxious to inquire whether the public welfare would not be best consulted if certain offices were filled *exclusively* by medical men, which are now almost exclusively filled by lawyers. That there are many such we cannot entertain a doubt, but on this occasion shall notice only one, viz. that of Coroner. It is unnecessary to trace the history of this office, or to inquire what was its ancient dignity; it is enough to show the manner in which its duties are executed at present. The *legal* knowledge required of the Coroner may be comprised in a nut-shell, and could be learned even by a dunce within an hour; what other qualification then does the office demand for the efficient discharge of the most important of the duties connected with it?—First-rate MEDICAL ACQUIREMENTS.

The ignorance of Coroners is proverbial, but their ignorance in medical matters is a scandal to the criminal justice of the country; unfortunately, this is not the worst part of the evil, as it frequently happens, that owing to the extreme stupidity of these men, in matters relating to disease, and the immediate causes of death, that many innocent persons are incarcerated in the loathsome dungeons of a jail, and finally placed at the bar of justice as criminals, when not a tittle of evidence ever existed, by which the charge could be substantiated; or if adduced for such a purpose, could only elicit a smile from the well informed. Thus an innocent man often undergoes undeserved punishment, and his character receives a stigma that he can never remove. There are many other evils which we shall advert to hereafter, and, in fact, continue to notice until we convince the public and parliament, that no individuals should be allowed to hold the office of coroner, without having received a first-rate medical education.

We have been induced to call public attention to the subject, on this occasion, in consequence of two curious inquests that have recently been held; one at DOVER, and another at SHELTON, in Staffordshire. The following are the particulars of the Dover affair:—

On Tuesday, Oct. 2, John Weston, ætat. 45, obtained a ticket for the Dover Dispensary, and complaining of some rheumatic affection, was bled by the apprentice; about four o'clock on the following morning, the arm (like poor Wheeler's) had become so much swollen from the tightness of the bandage, that he desired his wife to go for medical assistance. The dispensary assistant attended, loosened the bandage, and administered an *anodyne*; but things still growing worse, Mr. SANKEY, the *surgeon* of the Dispensary, with his two pupils, attended and performed *some* operation on the man's arm, and on Thursday morning at four o'clock the poor fellow expired. The Dispensary Committee being dissatisfied, an inquest was held, Mr. Sankey at the same time stating, that he courted inquiry; at this Inquest, only Mr. Sankey and his pupils were examined, neither the man's wife nor any other person being called. Mr. Sankey *swore* that the artery of the arm had NOT BEEN CUT, and he further swore *that he had* TIED *it*. Verdict "Died by the visitation of God." On the absurdity of this evidence being pointed out by various medical practitioners, a second inquest was demanded by the public, when three medical gentlemen were deputed to examine the arm, who found *two ligatures* on the brachial artery ABOVE the wound; and immediately below the *lower* ligature, about an inch of the vessel had been cut away *at the part corresponding* to the *opening* made into the vein. Mr. Sankey at this inquest deposed that when he saw the patient *he thought* there was an *internal* arterial bleeding, and that he accordingly tied the vessel above the wound, but that when he examined the body after death, he found that the artery *had not been cut*. The wisdom and love of truth displayed by the coroner on this occasion, are only equalled by the extraordinary skill and swearing of the surgeon. The coroner holds an inquest, and is satisfied with the evidence of the three implicated parties; he is informed by the surgeon that the artery was *not cut*, by the same surgeon that he *tied* the vessels; and why?—*because it was* NOT *cut!* Thus both coroner and surgeon were quite satisfied. Precious surgeon! precious coroner!

The other inquest was held at Shelton, on the body of a newly-born male child. A surgeon of the name of Harding gave it as his opinion, that the infant was STILL-BORN; when the coroner, a Mr. Dent, atated to the jury, that though it appeared from the evidence that the child was *not* born alive, yet the offence of concealing its birth was so fully proved against the prisoner, that it became a duty to make her a public example; and this could only be done, by returning a verdict of *wilful murder*! The jury consulted—a very intellectual consultation it must have been—and the asses positively *did* bring in a verdict of wilful murder; thus making the woman KILL a still-born child. A brief report of this case, which is to be found in the *Pottery Mercury*, together with a detailed account of the Dover inquests, surgery and swearing, we will insert next week. Till when, we bid adieu to the non-medical coroners, and Mr. Swearing Sankey.

It is probable that we may diffuse considerable benefits, by investigating the nature of that condition of the intellect which is denominated *unsoundness*, and which has not been hitherto defined by lawyer or physician, although it is often employed for the mischievous purpose of depriving a *rational* individual of the exercise of his property, and of consigning his person to the custody of keepers. That we are not singular in our objections to the destructive force of this unexplained phrase, "*unsoundness of mind*," we quote the expressions of Dr. Haslam, in his oration before the London Medical Society, as reported in THE LANCET of the 18th of March, 1826:—"In the successful prosecution of this subject, (the nature of the human mind,) we may expect a nicer discrimination between crime and insanity, than has been hitherto established; and anticipate the explosion of that baneful doctrine of the *mind's unsoundness*, the mischievous contrivance of forensic subtlety, the refuge of ignorance, and the tool of fraud; the blazon of materialism, an insult to common sense, and a libel on the Christian religion." This character of unsoundnes of mind, if such state can be satisfactorily proved, is deserving of the gravest reprehension; and it is to be hoped, that some of our correspondents who are enamoured of the doctrine, and who profit by its convenience, will correctly demonstrate *some state* of the human intellect, which is neither idiotcy, lunacy, nor insanity, that may be considered—*unsoundness*.

These observations have been suggested, by a perusal of the reported proceedings in a case of alleged lunacy, that lately occurred at Nottingham; where the jury, either by their own deliberations, or from some *disinterested* assistance they may have received from the commissioners, promulgated the following extraordinary verdict:—"We find that the Rev. William Holmes is NOT a *lunatic*; but from loss of memory, partly arising from paralysis, and partly from old age, he is incompetent to manage his affairs; and, CONSEQUENTLY, that he *is* of *unsound mind*, for two years last past." To establish unsoundness of mind, this philosophical jury have only adduced, that by paralysis and *old age*, he labours under a loss of memory, which is the common lot of all human beings. Every individual, as he advances in years, forgets the names of his acquaintance, and the date of events; frequently repeats inquiries that have been previously answered, and tells the same story over again. This decline of the recollection in old age, is a law of our nature, the establishment of divine wisdom; and to this state of *unsoundness*, every individual of the Nottingham Jury will be reduced, in the unfortunate event of the protraction of his existence to that period, which was formerly denominated an honourable old age. Long life, under such a system, will prove the greatest curse that can befall our species, and create additional invitations to suicide, in order to avert the horrors of a madhouse, or the cruelties of unprincipled relatives. The extension of this doctrine will become the great bar to industry, and subvert those economical habits by which a fortune is accumulated, as every one will necessarily anticipate, when he has passed the meridian of life, that he is daily verging on *unsoundness*; and that to prove this nefarious hypothesis, the best part of his property will be sacrificed to the rapacity of lawyer and physician. If such be the facility of disqualifying a rational person from the management of his affairs, a door is opened whereby the heartless relative may set aside the just indignation of his parent, by proving him susceptible of the common fallibilities of our nature, and interpreting the usual lapses of recollection, as incompetence and *unsoundness of mind*. If we examine this subject more intimately, we shall discover the manifest impropriety of the term *unsoundness*, which is the negative of *sound*. Could the possession of perfectly sound mind be attributed to any human being, (which has never been pretended) any, even the slightest deflection from such perfect state, would constitute a degree of unsoundness; any imperfection in the sensitive organs, by which our perceptions are conveyed, and which are the foundations of our intellectual acquirements, would amount to *unsoundness*. The most trifling lapse of recollection, the slightest error in judgment, or defect in the process of reasoning, would constitute *unsoundness*, as such frailties are aberrations from perfect soundness of mind. The lawyer, even Lord Hardwicke, with whom this pernicious doctrine appears to have originated, has not described any symptoms by which this *unsoundness* can be detected; nor has any physician, who has exclusively devoted himself to the particular investigation of the mind in its various vicissitudes, even affected to define this *state of unsoundness*, as distinguished from idiotcy, lunacy, or insanity. It is therefore a fair presumption, that this undefined state of unsoundness of mind, is the mere creature of Lord Hardwicke's imagination, and that succeeding chancellors, who have adopted this ambiguous phrase, have fondly dreamed of the same phantom. Mark the consecutive absurdity of this process. The Nottingham Jury, twelve ordinary men—

> "Whose souls proud science never taught to stray
> Far as the solar walk, or milky way,"

of course putting watch-makers and dairymen out of the question; these twelve men, without rudder, compass, or chart, are directed to discover this *state af unsoundness* and in the event of their verdict, to place the unfortunate individual in a condition of equal disqualification with an ideot ex naturtate, or with a lunatic. In this *legal* inquisition, you may readily suppose that much conflicting and contradictory evidence was adduced. The party that had petitioned *for* the commission (his own daughter!!!) was in no degree reserved in "scraping together" every possible testimony to deteriorate the intellect of her father: and those who opposed the commission, persons of the highest respectability, morality, and science, deposed, from their intimate knowledge, and medical investigations, that his mind was wholly exempt from insanity,—that he was a rational agent, and a responsible being. In order to proceed fairly, we will, for the present, neutralize, or rather, set aside, these opposite testimonies, in order to exhibit the conduct of this Nottingham Jury. In all the important inquisitions that have been held in the metropolis, and we believe elsewhere, relating to lunacy, the supposed lunatic has been *produced*, when the evidence, *for* and *against* the commission, had been concluded; in order that the jury, after having heard the evidence on both sides, might, by *personal inquiries*, ascertain the actual state of his mind, and thereby become enabled, conscientiously, to discharge their duty. It must be evident, that in a contested inquiry, the jury ought not to give implicit credit to either side; and if they are honest and intelligent persons, nothing but the evidence of their own minds, by personal intercourse with the supposed lunatic, ought to satisfy their love of truth, honourable feelings, and solemn obligations. Yet this Nottingham and notable jury, NEVER SAW THE SUPPOSED LUNATIC!

THE Pupils of St. Bartholomew's Hospital continue to complain most bitterly of the manner in which their interests are disregarded by the medical officers of that institution. We are really surprised how individuals, having any pretensions to the character of men of honour, and gentlemen, can coolly pocket the enormous fees extorted from the students, without attempting to afford them the smallest equivalent in the shape of instruction. The post mortem examinations are neither publicly announced nor publicly effected; notices of operations are seldom or never posted; the anatomical demonstrations are usually given about twelve or one o'clock in the Theatre, whilst the surgeons of the hospital are seeing the patients in the wards; and to complete the catalogue of evils, no regular course of clinical lectures is delivered: in fact, unless from Mr. Lawrence, the pupils scarcely hear a word explanatory of any disease in the hospital. We fear that the students will find no adequate remedy without an application to the Committee of Governors.

ON Monday last, at the Veterinary College, Mr. Coleman commenced the delivery of his annual patent stuff, miscalled "Lectures." The professor was more than usually guarded in his expressions, broached no new doctrines, abstained from recommending his patent frog-pressure shoe, patent spit-bar shoe, and his two or three dozen other patent shoes, and studiously avoided noticing the controversies on veterinary affairs which have engaged the attention of veterinary surgeons during the past year. In this he displayed more of sagacity than of liberality. It would seem indeed that he does not like public discussions, or that his valuable and scientific doctrines should be subjected to the scrutiny of the vulgar; as he had the modesty in the course of his lecture to say, that if any gentleman had entered to his class with a view to take notes of his lectures for publication, he would, on application, return him his money, as he was determined that they should not appear in print. God help the man! he surely might have recollected that there are far cheaper methods of soiling paper than by impressing on it the typical marks of such nonsensical trash. But we would have Mr. Coleman bear in mind, that the veterinary college has had expended upon it fifteen thousand pounds of the public money, granted at different periods by Government; that the country therefore has a right to know what the institution has accomplished for the advancement of science; and that consequently his lectures are not less the property of the public (if worth any thing) than those of Mr. Abernethy, or those delivered at the College of Surgeons, or any other public institution.

THE discussion on the treatment of erysipelas was resumed at the Medico-Chirurgical Society on Tuesday evening, and lasted upwards of two hours. Mr. LAWRENCE delivered a most eloquent speech, supporting and further developing the principles which he maintained on a former evening. Want of space compels us to defer the report.

We insert the following letter from Mr. Cooke, and will publish a full list of the subscribers in our ensuing Number:—

MR. COOKE'S LETTER TO HIS SUBSCRIBERS.

GENTLEMEN,—It seems very ordinary and trifling, to say that I am deeply grateful for your very liberal subscription, the amount of which (226*l.* 8*s.*) has been conveyed to me by Mr. Wakley. Your subscription owes its commencement to the high public spirit, as well as the kindly feeling, of the Editor of THE LANCET, and it has had a more than satisfactory consummation from the same honourable principles in yourselves. These perhaps may sound as common-place expressions, signifying little, and not even expressing much; but verbose professions are generally the refuge of insincerity, while the intensity of real emotion is indicated by one brief expression, which defies misconception, and cannot but be true. A complete explanation of this vexatious affair is, however, due from me; and I proceed to give it as briefly and as explicitly as I am able.

I went to Exeter in March, 1826, as a perfect stranger, having been induced to leave my native county (Stafford) by threatening symptoms of phthisis, and directed to Devon as a warm part of the island, by the same unwelcome monitor. Finding myself a good deal at leisure, I determined to consult some gentlemen of Exeter with whom I had become acquainted, respecting the expediency of adopting a plan that I had long reflected upon, namely, that of giving a course of anatomical lectures to gentlemen of any profession, who might be inclined to study anatomy as a branch of general science. The suggestion was warmly approved, and I commenced in October with the pleasure of addressing about fifty gentlemen, among whom were medical practioners and students, reverend gentlemen, attorneys, artists, and others of like respectability. Our number declined to about forty, at which it continued. We were occupied upon preliminary objects and osteology, during the course of about ten lectures. At the time of the 8th, I wrote to a friend in London to procure a subject, an office which none was either more capable or more willing to perform. Owing, however, to the wretched condition of the profession in this respect, no subject could be obtained. Many letters passed between us, and the lectures in the mean time drew desultory and unconnected. As a dernier resort, therefore, to the hazard of which I was by no means unawake, and which I had taken great pains to avoid, I was compelled to authorise the disinterment of a body from a place half a mile distant from the city. I had *every* reason to believe that the business would have been well conducted. I should not be justified in going into more particulars upon this point, but medical men will know what is meant by the word *every*.

Hands apt, time fit, &c.

The event was this. A grave was seen to have been disturbed, a certain person was suspected to be the agent, and the officers were directed to my house, partly by his family, and partly by my own circular. They arrived at ten o'clock on the following morning, by which time I had commenced my dissection, having to meet my fellow students on that evening. The body was identified, and I was conducted to the Guildhall, and there the matter was viewed as an offence of a very serious nature, the aim and object of the accused being entirely overlooked, as if the moral turpitude of our actions were not to be estimated by any such a standard. A small quantity of linen was said to be missing, and the officers were resent in search of it, it being deemed necessary for the ends of public justice that I should be indicted both for the misdemeanour, and for a felony. This seems very extraordinary, but to the vulgar mind the very name of anatomy is a bugbear; because in the plenitude of consummate and contented "fat and pursy" ignorance, it knows not that any useful science is meant by the term, but conceives it as just synonymous and equally indefinable, with the "raw head and bloody bones" of the still relished nursery tale.

I and my securities were bound over in 400*l.* to answer the offence at the assize, not however till after a grave debate whether so deep dyed a crime were legally bailable. Fearing the effect of popular prejudice, I procured the removal of my cause into the Court of King's Bench.

It was tried at Exeter before Mr. Justice Park, and after conviction upon the misdemeanour, the charge of felony was ridiculed by that learned Judge, and by him the counsel for the prosecution was easily induced to give it up; not (as was hinted) for the sake of my character so much as in charity for that of his clients. The result is well known. I was fined 100*l.*, and only escaped imprisonment on account of what the court was pleased to call my *otherwise* good character, and from the fact of my having a wife and family dependent upon my exertions.

Thus, Gentlemen, we are obnoxious to fine and imprisonment for paying obedience to the laws. We have legally-appointed examiners on the one hand, who bid us dissect human bodies, and we have legal sages on the other who forbid us to possess them. Surely these potentates should condescend to an armistice, so as to take breath and consider this point—whether sound health be preferable to disease, or a long and fatal illness to one of short duration terminating in health. Then, accordingly as they *happened* to determine, we might either pursue our studies or turn our hands; or in the event of the point being considered indeterminable, (as in effect it is at present,) we might either adopt the profession with all its absurdities, or (what would be better) decline both.

This, Gentlemen, is a "brief abstract" of what was a very long and harassing process; commencing in November, continued till May, and attended by concurrent annoyances daily arising, such as vestry-meetings publicly called during church service, "to consider the best mode of prosecuting," &c; the occurrence of such meetings, and the discussion of their affairs; continual legal consultations; the necessity of going to town on the same business; the loss of practice; and a very unpleasant kind of provincial notoriety. My prosecutors consisted of the undiscerning many of a populous parish; and their constant endeavour was, as much as possible, to harass feelings and destroy reputation. But you, Gentlemen, by a noble and strenuous effort, have blasted that endeavour;—you have taught the young anatomist that he may pursue his studies fearlessly; and you have told the public generally, that until their good sense leads them to protect anatomists instead of persecuting them, you will yourselves advocate their own cause, and compel the public to allow their medical advisers to qualify themselves, whether they will or no. When I consider the great amount of your subscription, I am equally astonished at the fine liberality of the medical profession, and at the powerful action of that engine by whose operation the work has been done. I congratulate you, Gentlemen, upon your possession of this independent medical observer, as upon the existence of what has heretofore been a great desideratum, viz. a medical periodical, whose business should be to watch over the interests of medical students, to report the proceedings of medical societies, to observe and communicate to the profession the practice of those gentlemen who fill public stations, to report important cases, and to form a free channel through which the humblest individual injured may obtain redress, and the most exalted, if doing ill, may hear the voice of reproof.

At the first proposal, and during the progress of your subscription, I have felt sensations of deep humility, upon reflecting that so high and munificent a proposition, so grand in sentiment and in feeling, should have for its aim a mark so obscure and humble; but I have reflected that individual merit was no point of consideration,—that anatomy was to be protected, that the portal of the medical temple was to be defended; and upon this reflection, I have learned to view the case indifferently, and as one rather regarding the profession than myself. Many of the most distinguished members of that profession have done me the honour of suffering their names to appear; and though other eminent individuals have chosen rather to do good by stealth, forbidding any public announcement of their names, yet such and so general has been the feeling of generosity and zeal for the science, that I am justified in boasting of having received the support of the medical profession. In conclusion I beg particularly to thank those gentlemen, who, as members of various medical societies, have thought proper to honour me with their notice. To those also I present my sincere acknowledgments, who have devoted some time to a sort of canvass of their medical friends. To all I repeat my assurances of the high sense I entertain of their liberality and public spirit, trusting that while I steadily pursue the path upon which I have entered, I shall never lessen the dignity of our common profession by any act really entailing disgrace.

I have the honor to be,
Gentlemen,
Your very obedient and much obliged
Servant,
Wm. Cooke.

London, Nov. 12th., 1827,

SUBSCRIPTION

TO PAY THE FINE AND LAW EXPENSES OF MR. W. COOKE, OF EXETER.

To the Editor of The Lancet.

Sir,—I was extremely sorry to observe in your last Lancet, that the subscription for Mr. Cooke had finally closed by that gentleman's desire. I had collected the sum of *3l.* 11*s.*, and my reason for not forwarding it earlier, was from the hope I should be able to augment the sum in aid of the subscription to indemnify that gentleman from such a gross oppression.

I have the honour to remain,
Sir,
Your obedient Servant,
John Hewson,

Lincoln, Nov. 9, 1827.

	£	*s.*	*d.*
Mr. R. Bousfield, Surgeon.. ..	0	5	0
E. P. Charlsworth, M.D......	1	0	0
Mr. F. E. Frankylin	0	5	0
Mr. E. B. Drury, not medical .	0	5	0
Mr. Sulton Harvey, Surgeon ..	0	10	6
Mr. John Hewson, ditto	0	10	6
Mr. T. Fawssett, pupil of ditto	0	5	0
Mr. F. A. Sayles, Dentist	0	5	0
Mr. Tuke, not medical........	0	5	0
	3	11	0
Amount before advertised	222	17	0

Total amount of the Subscription, Two Hundred and Twenty-six Pounds Eight Shillings.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Nov. 10.

Dr. Somerville in the Chair.

The minutes of the preceding meeting having been read and confirmed, the President stated, that Dr. Barry had undertaken to lay before the Society that evening, a communication on the subject of

INTERNAL ANEURISM.

Dr. Barry opened the discussion by observing, that although the theory and the treatment of aneurisms affecting the arteries of the great cavities, particularly those of the thorax, must have been at all times of the most vital importance to mankind and to the profession; and although the subject had been already amply treated by the ablest men, it had become more pointedly interesting to us at the present moment, owing to some recent events that had occurred in this metropolis. Dr. Barry lamented the absence of the very distinguished individual to whom these events were chiefly due, and paid a high compliment to his talents.

The ancients, he said, were absolutely silent as to internal aneurisms, unless we chose to consider that Hippocrates, when he talks of varix of the veins of the lungs, alludes to aneurismal dilatation of the thoracic arteries: a thing not improbable, because the term *vein* was then indiscriminately applied to all blood-vessels, and *varix* to all their dilatations. But, as aneurisms of the extremities are frequently mentioned by Galen, Celsus, and others; and as the principles upon which all aneurismal dilatations are produced and cured, seem to be the same, the history of the progressive improvements in the treatment of external, will naturally lead us to the application of these improvements to the cure of internal, aneurisms.

After noticing the spontaneous cure—the cure by compression—that by tying the artery between the tumour and the heart—that said to be effected in some rare instances by bleeding, low living, and rest; and finally, the plan of cure by tying the vessel at the distal side of the tumour: Dr. Barry contended, that the rationale of the cure is the same in all, viz. the diminution of motion in the blood of the aneurismal sac, the consequent formation of a coagulum, and the organisation of fibrine. The latter, by its contraction, diminishes the size of the clot, by squeezing out the more liquid parts, and the red globules. Thus vessels are formed. The arterial coats follow this contraction, and thus the sac becomes solid, whilst it diminishes in volume. When Deschamps and Sir A. Cooper tied the femoral artery beyond the tumour, the operations failed, because, in both cases, lateral arteries were left open between the ligature and the aneurism. This circumstance cannot occur when the common carotid trunk is the subject of operation, and therefore a coagulum will be formed between the ligature and the heart, as well as above the ligature. In aneurismal dilatation of the innominata, and root of the subclavian, if the circulation be interrupted in the carotid, as in the case of Mrs. Denmark, a less quantity of blood is sent through the brachio-cephalic trunk, than in a state of health. If under these circumstances the subclavian be tied, a still less quantity will be sent into it; the motion is consequently diminished, and the cure, which nature had commenced, is expedited and accomplished before the aneurismal tumour has acquired sufficient volume to press fatally upon the trachea, or on any other important organ. The protrusion of the sternal end of the clavicle, and the incipient dislocation of the sterno-clavicular articulation, perceptible in this case before the operation, have disappeared. The constant pains of the head, neck, right shoulder and arm, have ceased; but the dyspnœa continues. Whether this woman's span of life be ultimately prolonged or not, her sufferings are certainly diminished, and the principle of the operation hitherto is justified.

Dr. Barry had examined this woman within the last fifteen days, and he could state, that neither percussion nor the stethoscope indicates any organic change in the heart.

Dr. Barry, in conclusion, remarked, that it should rather be considered as the misfortune of the present state of our knowledge, than the fault of individuals, that aneurisms of the ascending aorta and its arch, are often mistaken for other diseases, and not detected before they prove fatal. There is, absolutely, neither functional symptom, nor physical sign, by which the existence of this terrible disease can be proved, before the aneurismal bag touches the walls of the thorax at some point. Then, indeed, percussion and the stethoscope can generally place the matter beyond all doubt.

He apologised to the Society for taking up so much of their valuable time, and sat down amidst universal applause.

Mr. Mayo observed, that the propriety of the principle of tying an artery beyond the aneurism, which had been proposed by Anel, Dessault, and Deschamps, and which had lately been put into execution in several cases by Mr. Wardrop, was now generally admitted by surgeons. A case had lately occurred under the care of his friend Mr. Phillips, where an aneurism of the subclavian artery had undergone a spontaneous cure, and he hoped that Mr. Phillips would favour them with an account of the patient. In a case of femoral aneurism, in which the common operation was performed by Mr. Bell, of tying the artery above the tumour, a circumstance had occurred worthy of notice. On a certain day after the operation, the pulsation in the tumour had slightly returned; the day after that had increased, but, on the following day, it had again disappeared. Mr. Mayo again confirmed the propriety, in certain cases, of tying the ligature of an artery on the distal side of the tumour.

Dr. Johnson thought, that the Society was certainly highly obliged to Dr. Barry for the learning he had displayed on the subject of aneurism; he had expected to hear a little more concerning its nature and causes. There was, in his opinion, a great distinction to be made between a mere dilatation of an artery, which might last for life, and that state where a pouch went off from a vessel. He conceived that Mr. Lambert's case was one of the former disease; and he considered, that the cases in support of the operation beyond the tumour, were by no means very decisive, although he did not, by that statement, wish to call in question the propriety of the operations, of which he *highly approved*. He thought, however, that the ligature of an artery beyond the tumour, was an operation only applicable to those cases where no vessel arose from the sac, or intervened between it and the point of ligature; for, in Sir Astley Cooper's case, where such small vessels as the epigastric and *iliacus internus* (the Doctor obviously meant the arteria circumflexa ilii interna) came off from the sac, the operation had failed. There was a remedy which, in some of these diseases, he considered to be of great benefit, namely, the application of ice. In a very severe case of hypertrophy of the heart, which had lately been under his care, the patient had obtained extraordinary relief. Dr. Barry had mentioned, that in Mrs. Denmark's case, the carotid artery was obliterated, but he was decidedly of opinion, that had that been the case, the circulation would not have returned so speedily.

Mr. Stafford gave an account of Mr. Phillips's case of aneurism of the subclavian artery, which is now undergoing the natural process of cure. The tumour is greatly diminished; no pulsation is perceptible in it, or in the right carotid or radial arteries. The motions and sensibility of the arm are greatly impaired, and the fingers are of a livid hue

Mr. Skene offered some general physiological observations, drawing an analogy between the steps of nature in curing aneurism, and the principles of the operation, and thus deducing its practical expediency.

Mr. Bushel, the house-surgeon of St. George's Hospital, then rose, at the request of Mr. Mayo, to relate the circumstances of a case of femoral aneurism, which had lately occurred in that institution, under the care of Mr. Brodie. The patient was admitted for a large popliteal aneurism, which had a very violent pulsation, and the integuments covering which were very much attenuated. Mr. Brodie had tied the femoral artery in the usual situation, and the patient had gone on well till the thirtieth day, when a slight hæmorrhage occurred from the wound. This, soon after, notwithstanding the application of pressure, recurred to an alarming extent, and it was deemed advisable to secure the artery in the groin. The patient went on well for several days, (we think a fortnight,) when a slight bleeding took place from the wound; however, not more than a table spoonful was at this time lost. It was at first supposed, that this might arise from some irritation of the granulations. It recurred, however, several times. It was now conceived, that ossification of the arteries might exist; and it was, therefore, not thought advisable again to secure the vessel, and an instrument was applied to compress the artery, and prevent the hæmorrhage. This, however, seemed to have induced mortification of the limb, and the patient died. On dissection, it was found that the coats of the artery were not ossified, but converted into a steomatous degeneration.

Dr. Macleod gave an account of a case which had been transmitted to him for publication, where an enormous aneurism of the subclavian artery (or the aorta) had made its way through the ribs, and burst into the mamma. This became enormously swollen. It only retarded the progress of the disease for a few hours, for it soon gave way, and the patient died of hæmorrhage.

After a discussion on the absurdity and utility of the distinctions between the domains of surgeons and physicians, which was conducted by Messrs. Mayo, Macleod, and Thomson,

Dr. Somerville proposed, that as the hour of meeting was now elapsed, that the subject should be resumed at the next meeting; but, in order that it might apply equally to surgeons and physicians, that it should be changed to "aneurism in general." Dr. Barry, in choosing the name "internal aneurism," had done so, because Dr. Gregory, in the previous evening, had expressed a wish that medical and surgical subjects should be discussed alternately, and he thought that denomination might apply to both. Of late, great inroads had been made on the territories of the physicians, which he conceived were bounded superiorly by the clavicle, and below by Poupart's ligament. Mr. Abernethy had first encroached on them, by tying the external iliac artery; then that great *Tamerlane* of surgery, Sir Astley Cooper, had tied the aorta itself, and now Mr. Wardrop had commenced operations at the other boundary, and was rapidly making his way into the cavity of the chest. He would be most happy to enter on the subject of "aneurism in general" at the next meeting.

LONDON MEDICAL SOCIETY.

Monday, November 12.

Dr. Haslam, President, in the Chair.

A general Meeting of the Members took place this evening, to receive a report of the state of the Society. The Chairman read the report, from which it appeared that the Society is in a very flourishing condition, having received a considerable accession in the number of its members of late, and having a large balance of money in hand. Amongst the names of the corresponding members of the Society recently elected, we noticed that of Professor Tiedmann. The report being concluded, and a list of the books lately purchased read at the request of Dr. Blick, a discussion then arose with respect to the disposal of the papers read before the Society. Mr. Field, the Registrar, contended, that the papers after being read, became the property of the Society, and in consequence should be handed over to him and retained in his possession. Mr. Field cited an old law to the effect, that papers read before the Society, and afterwards given to the Secretary, then exclusively belonged to the Society. Dr. Haslam, Mr. Waller, and Mr. Gossett, strongly opposed the general application of this law, considering that it would be highly illiberal to prevent the members who brought forward papers from disposing of them in any manner they pleased. Dr. Haslam spoke strongly of the advantages resulting from a publicity of the Society's proceedings; and Mr. Gossett very properly remarked, that if an old law did exist, which the Society at large considered as imposing unnecessary restraints, it was advisable to annul it, and adopt one better suited to their present views and feelings. But Mr. Field, forsooth, did not wish the Society "*to be robbed* of the merit which belonged to it;" that is to say, we suppose, that he thought it better for the papers to be transcribed into his book, and there for ever buried, than that the authors should take other means of giving publicity to information, perchance, of the most valuable kind. No decisive arrangement was made on the subject.

Mr. Gossett briefly related a case of dislocation of the malar bone at present under his care. The patient is a resurrection man, and the accident was occasioned by a blow with the fist. The bone is completely driven in at its zygomatic junction, and of course thrown forwards and outwards at its attachment with the superior maxillary bone. The injury is of a month's duration, and it being impossible to reduce the bone, the question of the propriety of an operation arises out of the circumstance of the man being unable to separate his jaws only to a very limited extent, not more than three quarters of an inch. To a question from Mr. Lloyd, whether the orbit was injured in this case, Mr. Gossett replied, there was a "slight twist" perceptible; the frontal connexion of the bone, however, was very little impaired. No further discussion took place on this subject, and

Mr. Lloyd next made a few observations on *ranula*, of which disease, he said, that he had seen many instances which he had treated successfully by the use of a seton, after the laying open and injection of the tumours had failed. These remarks elicited no reply.

Dr. Blick spoke of a case of parturition which he had lately attended; it was what is termed a foot presentation; the child was born, with the exception of the head, and having gone so far in expelling the child, the uterus ceased to act. In this state of affairs, and not being provided with forceps, Dr. Blick was fearful that the child would be suffocated; he therefore introduced a catheter into the child's mouth, and having attached a bellows to the opposite end, proceeded to inflate the lungs. This action was kept up for about ten minutes; the sound of respiration soon became distinct, and after a few inflations the child began to cry. Dr. Blick having now obtained his forceps, applied them, and delivered the woman with facility. He (Dr. Blick) had never before adopted this kind of practice, nor could he find any account of such practice recorded. The face of the child was towards the sacrum.

Many objections were raised upon the treatment of this case; on the one hand it was contended, that the application of the forceps was in such circumstances very difficult, and, on the other hand, it was argued, that there was no necessity for using them, the child having passed so low down, that the finger might readily have been introduced into the mouth. Again it was said, that artificial respiration was not requisite in these cases, and that the chief object of attention should be to keep the funis free from pressure; others doubted that respiration had been effected. The relator of the case said, that he found no difficulty in using the forceps in such cases, that although it were possible to introduce the finger into the child's mouth, it did not follow in such a case, as a natural consequence, that delivery could be effected, without injurious violence to the child. With respect to the non-necessity of artificial respiration and importance of attending to the circulation in the funis, Dr. Blick observed, that in 99 cases out of 100, the placenta was detached as soon as the body of the child was born, and of course the circulation was not carried on in such cases.

A long dispute arose on the employment of forceps generally, in the course of which, much conflicting testimony was advanced, proving that the law does not stand alone and unrivalled in its "glorious uncertainty." Some of the members, Dr. Williams, Mr. Proctor, and others, had attended "hundreds of cases" without using the forceps, or with a very few exceptions; and it was further stated, that Mr. Gaitskell of Rotherhithe, had attended, during a practice of 40 years, upwards of *six thousand cases* of midwifery, and had used the forceps only *once* or *twice*. On the contrary, Dr. Blick said, that he had used instruments in some hundred cases, and he had been invariably successful. He contended that the use of the forceps saved the mother much unnecessary pain. The opinion and practice of Dr. Clark were referred to by Mr. Lloyd, from which it appeared, Dr. Clark approved of the use of forceps in a great number of instances. With respect to the little danger in using the forceps, Mr. Lambert said, that an eminent physician-accoucheur of his acquaintance had used the forceps in upwards of *seven hundred cases*, and had never met with any untoward circumstance.

ABUSES AT ST. BARTHOLOMEW'S.

To the Editor of The Lancet.

Sir.—I regret to say that the observations which appeared in The Lancet of the 27th ult., respecting post mortem examinations at St. Bartholomew's Hospital, have not yet been of any service. Subjects are still examined without any prevous notice, and none but the dressers and pupils, who may happen to stroll into the dead-house at the time the examinations are being made, have an opportunity of seeing them. In the prospectus of the lectures for this season it is said, "morbid inspections, as opportunities occur, *at one o'clock*." Even in this last particular no regularity is observed, for examinations are made at all hours. This very day, *at twelve o'clock*, the body of a man was opened, to whose case I, for one, had paid great attention, and wished particularly to ascertain the appearances which would present themselves after death; but as I had no means of learning at what time the inspection was to be made, I was disappointed in seeing it.—I know no reason, Sir, why post mortem examinations should not be conducted in the anatomical theatre, where all students who wish to attend might be easily accommodated. At all events a notice should be posted on the board at the theatre, specifying the day and hour when it is intended a morbid inspection should be made.

The physicians and surgeons should recollect that the students pay them most handsomely, and they ought in duty to afford their pupils every facility for making themselves thoroughly acquainted with every branch of their profession. Hoping you will find space for these remarks in your truly valuable journal, through which so many abuses have already been amended,

I subscribe myself, Sir,
Your obedient servannt,
A STUDENT.

Nov. 7th.

TOWN INFIRMARY, BIRMINGHAM.

STRICTURE—RETENTION OF URINE—OPERATION.

HENRY BIGGS, ætat. 30, a discharged soldier, had laboured under stricture in the urethra ten years. The difficulty in making water became so great, that during the last 18 months he had been a patient three times in a public hospital; was intrusted principally to the care of the dressers, who made, with considerable violence, several unsuccessful attempts to introduce the catheter into the bladder. Since his discharge from the institution, he has had occasional attacks of strangury: his urine passed generally by drops. On the 19th of May, one of these fits came on, and on the following morning was admitted into the Town Infirmary, under the care of Mr. Cox. On examining the abdomen, the distended bladder was readily detected rising above the pubes, and the parts exceedingly tender to the touch. He experienced excessive desire to pass his urine, accompanied with great pain, increased in proportion to the attempts to overcome the obstruction; great heat and dryness of the skin; full pulse; in fact, he exhibited all the symptoms of this excruciating disease to a high degree. He was extensively bled, leeches applied to the perineum, the warm bath, full opiates administered by mouth and by injection. Different sized catheters and bougies were attempted to be passed, and the plans recommended by Sir E. Home adopted, but to no effect. On the morning of the 21st, the symptoms had increased to such a degree, that no time was to be lost in relieving the bladder. A consultation was called, and it was unanimously the opinion that immediate recourse must be had to the knife. Amongst the gentlemen present, was Mr. R. Grainger, who took great interest in the case, as the operation to be adopted was that recommended by his father. The operation was performed by Mr. W. S. Cox, in the following manner:—The patient was secured as for lithotomy; a straight sound was introduced as far as the strictured point; a free external incision was made between the left crus and bulb, a second divided the fascia and the fibres of the transversus perinei. The urethra, distended by the sound, was now exposed, and its point by careful dissection denuded. An attempt was made to introdnce the female catheter, and afterwards a probe, into the bladder, in the supposed course of the continued portion of the canal, which did not succeed. The membranous portion of the urethra was so obliterated and impervious, as to become undistinguishable from the surrounding parts. Mr. Cox now attempted to divide the prostate as nearly as possible to the neck of the bladder, with a French bistoury, but was foiled from the shortness of the instrument, and in some degree from the recession of the gland, from the distended state of the bladder: considerable venous hæmorrhage occurred at this part of the operation. The staff was now withdrawn, and not succeeding in detecting the canal, the fore-finger was carried deep into the wound against the prostate; guided by it, a trochar was introduced, and the bladder punctured through the prostate, as nearly as possible in the natural situation of the opening into the bladder, and its contents evacuated. An elastic catheter was now introduced through the external wound into the bladder, the patient put to bed, simple dressing merely applied, and a full opiate administered. Six hours after the operation, the tension and soreness of the abdomen were not removed, but rather augmented; skin hot and dry; tongue furred; much thirst and restlessness; 20 leeches applied, and afterwards warm fomentations. He had a stool, and passed a quantity of blood from the wound. Saline draughts, with repeated opiates, were ordered. In the evening, as the symptoms eceived but little remission; the leeches were repeated; passed a restless night.

22. Abdomen tense and tender; to repeat the leeches; a dose of castor oil ordered; urine passed freely through the catheter and by its sides; bowels acted upon twice. In the evening, very much relieved; it was, however, deemed necessary to repeat the leeches, and to give a full opiate.

23. Enjoyed a good night, free from pain; all inflammatory symptoms subsiding; about a table spoonful of urine passed per urethram.

24, 25, and 26. Continued to improve; urine passed still more freely; catheter removed from the bladder. From this period, little or no water passed through the external wound, which began rapidly to close; at the expiration of a fortnight it was nearly healed up, and the water was expelled in an ample stream through the natural passage. The following week he left the ward, perfectly well; the wound had entirely united, and his water passed in a full and copious stream. During the whole progress of the cure, as the man went on so favourably, it was not deemed necessary to introduce the catheter. The case affords an admirable example of the powers of Nature in forming a new passage, and strikingly illustrates the most excellent remarks of Mr. Grainger on this subject.

ST. BARTHOLOMEW'S HOSPITAL.

MARCH OF INTELLECT! THROAT-CUTTING.

No one can have already forgotten the awful and petrifying deed committed, at the solemn hour of midnight, within the precincts of the "Hospital of Wonders," whereby an unfortunate wretch had his trachea divided for aneurism of the aorta, and was thus hurried, long before his time, to Pluto's dreary reign. The bad effects of that lamentable event have not, however, ceased with the life of the sufferer; the example has spread like wildfire, among "the fellows;" the tragedy has been repeated in Bartholomew's Hospital, another *throat has been cut* for aneurism, and death has once more triumphed over the efforts of human genius!

Owing to the secrecy with which the whole transaction was conducted, and the efforts which have been used by the agents in the business, to envelop it in impenetrable obscurity, we have had the greatest difficulty in tracing the features of the occurrence, but

"Man cannot cover what God would reveal."

And so having received information that a certain extraordinary preparation was lurking in Mr. Stanley's museum, by means of the *usual talisman* we obtained admittance, and thus found the key-stone, which has enabled us to bring the whole affair before the public eye.

An elderly man was admitted into Bartholomew's Hospital, under the care of Dr. Hughes, in the beginning of September, whose principal complaint was excessive difficulty of breathing. Dr. Hughes, with the dyagnostic accuracy peculiar to those who have received their education at the English universities, where medicine, as a science, is wholly unknown, conceived it arose from chronic asthma; he had frequent cough, great difficulty of breathing, expectoration of a frothy mucus, and a sense of weight, and constant uneasiness at the upper part of the sternum; and, accordingly, with a degree of determination which would have done honour to Sangrado himself, ordered the application of a blister, and the use of the "squill pill;" and actually, on one occasion, ventured to abstract a small quantity of blood from the arm. Notwithstanding, however, these *powerful* remedies, the disease for seven weeks continued to increase in severity, and, at length, one portentous night, it reached a state approaching to suffocation, and was pronounced by the Doctor to be *laryngitis*. The house-surgeon, Mr. Caswell, was instantly sent for, and, as we are informed, was ordered by Dr. Hughes to *cut the poor man's throat*; at all events, having before his eyes the brilliant example of Dr. Hewett, and his pure surgeon, Mr. Rose, the scientific Caswell proceeded to throw a light on the subject by making a hole in the unfortunate sufferer's windpipe! The operation, of course, afforded not the slightest relief, but quite the reverse; for, owing to the division of a considerable vessel, a quantity of blood passed into the air passages, and produced instant suffocation, the patient dying in the hands of the operator!

On dissection, it was found that *no portion* of the trachea, or even its ramifications, was in a diseased state; but, that an enormous ANEURISM, occupying the ascending and transverse portions of the arch of the aorta; had compressed the root of the bronchi, and thus given rise to the excessive dyspnœa, for which it was deemed advisable to incise the windpipe!

The aneurism turned out to be one of a very rare kind, being an enormous dilatation of the coats of the aorta, without rupture of any. At the upper portion of the sac, at that point where it pressed on the bronchi, there was a remarkably thick and organised deposit of lymph, adhering strongly to the inner tunic, but easily diatinguishable from it, by its colour and more spongy structure. The arteria innominata was entirely obliterated, and the orifice of the right carotid artery plugged up. Over the situation of the left carotid, which was quite pervious, there was placed perpendicularly across the aneurism, a broad firm lamina of coagulum, forming a complete septum between this artery and the cavity of the aorta, and which must have entirely prevented any communication between the carotid, and the blood circulating through the great vessels of the heart. The descending portion of the arch of the aorta was a little dilated, but was not lined with any deposit of lymph, nor in the cavity of the aneurism did there exist any deposition of coagulum in that unorganised state in which it is almost invariably found in false aneurism.

The preparation derived from this case, independent of the extraordinary circumstances connected with the *novel* operation, is one of a very rare and interesting kind, since it affords the best specimen, perhaps, to be found in any museum in the metropolis, of what has been denominated, *true aneurism*, the existence of which has been denied by so high an authority as Scarpa. It likewise exhibits a beautiful instance of the efforts of nature, in curing the disease, by shutting up the arterial trunks leading from the sac, and thus interrupting, or indeed, entirely preventing, the circulation of blood through it.

This valuable preparation is now in the possession of Mr. Stanley, who will, doubtless, be anxious to disclose its peculiarities to all interested in the subjects of *oneurism* or *tracheotomy*. How much *we owe* to the "enlarged intellectuals" of the London Hospitals! Pretty creatures, truly, to grant certificates of "sound chirurgical knowledge."

BAD CONSEQUENCES RESULTING FROM UNSCIENTIFIC TREATMENT OF FRACTURES.

E. W. ætat. 55, was brought to the hospital, having a tranverse fracture of the right femur. She was crossing Skinner Street a short time previous, when she fell, and the wheel of a hackney-coach, ran over her thigh, and occasioned the fracture. The situation of the "solution of continuity," as the old surgeons have it, was about two inches from the condyles. It was as fairly transverse as it was possible to be. The *proximal* portion of bone (to use the admirable nomenclature of the late Dr. Barclay) stood over the lowermost or *distal* portion, to the extent of half an inch. The dresser of the day, who arrogated to himself a knowledge superior to that of the house-surgeon, considered this latter functionary as a useless sort of person, and took the especial charge of the case to himself. This person, with the assistance of sister Queen and her two "very useful nurses," proceeded to reduce the fractured bones. After a good deal of "*tugging*," they succeeded in getting about half the surfaces of the fractured ends opposed to each other. This seemed to satisfy the worthy dresser, for with a smile of satisfaction playing on his countenance, and with much self-complacency, he bound up the limb in splints. In the course of a few days they were removed for Mr. Vincent to examine the thigh, when the displacement of the fractured bones was sufficiently evident. Mr. Vincent and his knowing dresser kept up a "tiny" extension for a short space of time, but it proved wholly inefficient for the proper reduction of the fractured bones. It was foolishly enough supposed, that *position* might remedy the defect. The splints were replaced. The limb was laid on its outer side, the leg bent at a half right angle, and a pillow laid beneath the knee, to elevate it slightly above the level of the trunk. This plan was pursued for a week, but at the end of that period, when the splints were removed, the displacement was greater than when it was instituted. Dessault's plan was now had recourse to. A long splint, reaching from the pelvis to the bottom of the foot, was placed on either side the limb, and by the assistance of bandages, permanent extension was to be kept up. But where was the use of all this, if the fractured bones were not previously reduced. Were the splints to complete the reduction? If such was calculated on, the calculators must have been miserably disappointed; for after continuing the plan of treatment for a month, about one-third of the fractured surfaces that had been opposed to each other, had become consolidated by bony union. The proximal portion of bone which projected so much inwards, occasioned excessive pain, by pressing on the nerves, which pass down the inner side of the thigh; and every measure was quite inadequate to assuage her sufferings. He even tried extension as his last resource; but, alas! it was *now* a useless remedy. The poor woman was removed into *Patience* Ward, where she remained for upwards of three weeks, but its virtue contributed in nowise to the diminution of her sufferings. She was ultimately discharged, a living monument of queer surgery, and to bear, during life, the misery of irremediable lameness.

Correspondents in our next.

THE LANCET.

Vol. I.] LONDON, SATURDAY, NOVEMBER 24. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Lecture VII.

Manner in which the Fœtus passes.

(*Continued.*)

Breech Presentations.—When the breech of the child, Gentlemen, is lying over the centre of the pelvis,—the abdomen and legs may be variously situated, in front, behind, to the one or the other side, obliquely, backward, and forward, and so on; and thus we may, if we are fond of minute divisions, produce a great variety of cases. In a view to practice, however, the grand object which we keep continually in view in these lectures, the presentations of the breech may be commodiously enough divided into *two* leading sorts or kinds; those, I mean, in which the abdomen of the child, as in the crural presentations, is lying *posteriorly*, that is, on the back of the mother; and those cases in which it is lying more or less *in front*. And if you understand thoroughly well the principles on which these two varieties of the breech presentation should be managed, all the intermediate cases may be conducted with great ease.

And first, then, of the presentation of the breech in which the abdomen of the child is lying more or less on the back of the mother. When the vertex of the child presents, I have observed to you already, that large as the head is, in natural labour, it is easily expelled by the spontaneous and unaided efforts of the womb; and thus it is with the presentations of the breech. It does not follow, because you find the breech presenting, that therefore the case is difficult, that further obstetrical assistance is requisite, that manual interference is requisite in order to secure the descent. In general, by the unaided efforts of the uterus, the nates will be gradually pushed to the external parts, in the same manner as in ordinary labours the head is pushed down into the outlet, and to these efforts we ought to trust. And when in this manner the breech is gradually descended, so that it lies at the outlet, you may then lay your finger upon the one side, and your thumb upon the other, and without violence, (a brutal error, always to be reprobated,) with gentleness and firmness, co-operating with the pains, if there be any, you may draw, throwing the body a little from side to side; often assiduously, solicitously, examining the perineum, that portion of the skin which is lying between the anus and the genital fissure, lest in drawing the nates this part should be torn. Advancing the breech in this manner, and as the part descends, carrying the back of the child towards the abdomen of the parent, you find the legs spontaneously drop forth;—what was a breech, becoming of consequence a foot presentation, to be managed afterwards by the rules prescribed in the last lecture, and in the manner now demonstrated.

To repeat: in the breech presentation, the belly of the child lying on the back of the mother, the natural efforts push the nates to the outlet; it may be in a few hours, it may be in a few minutes, the length of the time depending upon the capacity of the pelvis, the size of the fœtus, and the laxity of the softer parts. The breech reaching the outlet, you lay your fingers on the one, and your thumb on the other side, and solicitously guarding the perineum, co-operating with the pains, if there are any, and now and then feeling the umbilical chord, which lies between the thighs,—you draw, remembering that you are operating on the softer sex, proceeding with gentleness, and not with violence; *arte, non vi*, like *men*, and not like *brutes*, for it may be so translated.

It will sometimes happen, as observed already, that the breech presenting, the abdomen of the child may lie forward throughout the labour. Aware that under the breech presentation, the abdomen lying anteriorly, the natural efforts, if fairly tried, will commonly push the nates to the outlet; to these you ought generally to trust, though it must, I think, be admitted, that the part does not quite so speedily descend in this case as in the preceding; the nates then being pushed down upon the external parts, you may, as before, lay the fingers on the one, and the thumb on the other, hip, and swaying the child a little from side to side, and co-operating with the pains, you may draw down with gentleness, suffering the legs of themselves to drop forth. If, indeed, (ironically,) you wish to fracture the legs, you may do this with facility; put your fingers on the middle of the thigh-bones, give a pull with the sympathetic gentleness of a brewer's dray-horse, and you will break them easily enough, for at this period the bones are very fragile. But, as I presume you have no wish to do this, you had better, perhaps, draw forth as recommended, suffering the legs to escape spontaneously. Dr. Lowder was requested to see a woman labouring under the presentation of the nates; the labour being difficult, because the breech was large, and the pelvis small. The action of the womb being powerful, however, the breech was pushed to the outlet of the pelvis, and the accoucheur laying hold of the hips, assisted a little with his characteristic gentleness, but suffered the legs to drop forth of themselves. To this case a midwife had been called—a woman; and after the Doctor had brought away the child, she went up to it, examined the thighs, and turning round with surprise, exclaimed, Why, you have not broken the thighs! No, said the Doctor, why should I? I should not like to have my own thighs broken, and why should I break the child's? Why, said she, "*I always break the thighs!*" And this operation, it seems, she achieved, by pulling them violently in the manner demonstrated.

Let then, Gentlemen, the natural efforts bring the breech to the outlet of the pelvis, then lay hold of the hips, as demonstrated; draw down, carefully guarding the perineum, suffering the legs of their own accord to come forth, or at all events soliciting them with the utmost gentleness only, taking care lest the bones be fractured; after which, the legs being expelled, you obtain a foot presentation, to be managed by the rules already prescribed.

There is, however, Gentlemen, a second mode in which you may advantageously manage this case where the nates present, and the abdomen of the child is lying on the abdomen of the mother; and that is by rectifying the position, which may be accomplished in three modes. You may carry your hand into the pelvis in the way I now show you, when the child is at the brim, and turn the abdomen on the back. Or if the breech present, the abdomen lying forward, you may wait till the natural efforts have pushed the child to the outlet, and then slowly, and not without difficulty, you may make the turn. Or, lastly, you may delay till the legs have dropped forth, and then you may rectify the position, *arte, non vi*, provided all this can be accomplished without violence.

Now it certainly is desirable, that the fœtal abdomen should lie on the back of the mother, in these cases, more especially, before you attempt the extraction of the shoulders and head; because, as yesterday asserted, you will find the head, arms, and shoulders come away more easily when the abdomen is lying this way, than when placed anteriorly; and I should therefore recommend you, as a general practice, to turn the abdomen on the back.

Now, I said there are three occasions in which you may accomplish this; when the legs drop forth—when the breech is down at the outlet—and when the breech is at the brim. But, on the whole, I would dissuade you from making the turn when the breech is at the brim; for, to make this evolution then, you must carry your hand into the pelvis, an operation never justifiable, unless the necessity be inexorable; since in doing it, you may lacerate, contuse, and kill. It is better, therefore, to wait till the breech is pushed down upon the outlet, when you may attempt the turn by the manœuvre here shown; or should you fail in your attempts to turn when the breech is at the outlet, you may wait till the legs are escaped, when you may endeavour to accomplish it by grasping the hips with one hand, and spreading the other on the back, effecting the necessary movement by the co-operation of the two.

Under the breech presentation, as before observed, if you give a fair trial to the natural efforts, in most instances the fœtus of itself descends to the outlet, the accoucheur happily having little to do, except to sit at the bed side and to abstain from injury or mischief. However, as the natural efforts are now and then insufficient to push the head to the outlet, so also when the breech is large and the pelvis small, they are sometimes insufficient to expel the nates, so that artificial assistance is necessary. Now, the methods of assisting in the breech presentations, when necessary, are the following: in the first place, you may put your finger into the bend of the thigh, acting as with a hook, and drawing down with the finger in this manner on either side alternately, co-operating with the pains, you will find that you can draw with great effect, the uterus actively assisting. Should you not have power enough to draw with effect in this manner, you may then, taking two handkerchiefs, put one over the bend of either thigh; and laying the handkerchief neatly into the fold formed by the thigh and abdomen, so as to get an even bearing upon all the parts, you acquire a hold at once firm and safe, and may extract with much effect. In cases of this kind, too, you may give assistance by means of a *blunt hook;* an instrument, however, to which I am myself exceedingly averse, as, like the finger of a rude accoucheur, it has no feeling for the mother or child. Using this method, you employ this hook of *iron*, which may at times be tried with considerable advantage, and sliding the finger, as I now do, into the fold, conducting the instrument by the finger, you plant the hook on the bend of the thigh, so that the curve has a general bearing upon the parts, the instrument not resting on its point. Remember, in using this instrument, that force will produce terrible effects, and you may occasion sloughing, or may cripple the child for life; or (which is scarcely a greater evil) you may destroy it. There is yet another mode in which you may assist the descent of the breech, and which I think worth your knowing, though I do not recommend it to general practice;—and that is by the the use of the forceps. Nor am I deterred from the forceps by the alarms of Capuron, who asserts, the use of the instrument in this case to be *toujours dangereux sinon meurtrier pour l'enfant.* He thinks you may bruise the sides and viscera of the abdomen by the application of the forceps to the breech; and so you may, if you use force; but force, I have told you, is to be exploded from midwifery. If you lay hold of the hips with the forceps, you may grasp with gentleness, and if the parts slip from the instrument again and again, so much the better, for that shows you are not using a force too great, and to replace them you see is easy. If they come away six times, apply them seven, and persevering *paulatim,* by little and little, you may at length bring the nates to the outlet. Assisting then in one or other of these modes, by the finger, the handkerchief, the blunt hook, or the forceps, even in the more difficult cases, the breech may be made to descend; yet this not universally, for sometimes there is so much narrowness of the pelvis, at the brim especially, that under the breech presentation the fœtus cannot descend at all. Now, in a vertex case, where the head could not be expelled, you would lay open the cranium; an operation this, which cannot be performed on the presentation of the nates. What then is to be done? Why, to introduce the hand, to lay hold of the child's legs, and instead of the breech, to draw down the feet, is perhaps the only practice that remains, and in this manner, the difficulty may be easily removed. And here, perhaps, some one may be disposed to say, mentally, "That thought I like; that method I would always adopt in breech presentations; it gives me a command over the child." Is this your determination—this your intended practice? Then give me leave to tell you, that you are wrong; and you are wrong, because you are meddlesome; because in so doing, you might rupture the vagina and uterus; and because, in so doing, you have less chance of abstracting the fœtus alive; for it is worth observation, that *more* children are born alive under presentation of the *breech* than of the *feet*, for under the breech presentation a groove is formed between the abdomen and thighs, where the umbilical chord sometimes lodges, protected from any pressure that occasions that interruption of the circulation to which it is liable in the crural presentations, where the chord lies naked and undefended, as this apparatus clearly shows.

Thus much then respecting the management of the breech presentations; into the consideration of them I have entered at length, for they are cases, on the whole, by no means unfrequent in their occurrence. When the breech presents, you are not pragmatically to interfere. The natural efforts commonly push the fœtus to the outlet. The natural efforts failing, you have recourse to the finger, the handkerchief, the blunt hook, or the forceps. It rarely becomes necessary to bring down the feet by the hand, but the necessity existing, you proceed in the modes demonstrated.

Transverse Presentation.—When neither the superior nor inferior extremity of the child presents, the fœtus is said to lie *across* the pelvis. Under the presentation of the *arm*, of the *shoulder*, of the *back*, of the *hip*, of the *abdomen*, of the *chest*, you have so many transverse positions of the fœtus; and those cases, although they differ somewhat as to the presentations, are all conducted essentially on the same general principle, whence the subject becomes greatly simplified; for if you thoroughly understand the principle of management in one of those cases, you can apply it to them all. Now of all the various transverse presentations which I have just been demonstrating, by far the most common and the most difficult is that of the arm or shoulder, of which, indeed, you must frequently hear mention; and therefore, without bewildering you by entering into the consideration of all the varieties of tranverse presentations which occur, and which I have seen, I shall confine myself solely to the *presentation of the arm*.

When the arm of the child is presented in the way I now show you, provided the woman have reached the full time of gestation, you cannot, in this position, abstract the child. If with ferocious ignorance you lay hold of the arm and pull (the fœtus being of the full size,) torturing the innocent child like Damien the assassin, you break, you tear it limb from limb. But if the fœtus be under the age of six complete months, the delivery being premature, then the child is so small and so pliable, that if the pelvis be large or the pains be strong, it will pass under the shoulder presentation, yet even in these cases, it is wrong to draw the child. To illustrate all this, here is a pelvis of the standard capacity, and a model of the size of nine months; under the brachial presentation, you perceive it will not pass. Here is a second model, of the size of seven months; under the brachial presentation, this too cannot be transmitted; but here is a third model, of the size of six months complete, under the strong efforts of the womb, as you perceive, it might be pushed away, so that this is one mode in which the transverse presentation may be transmitted without change of position.

It is worth your knowing further, that when a child is lying transversely, and more especially when it presents by the arm or shoulder, it may sometimes be expelled at the full time of pregnancy, with no exertions on the part of the accoucheur under natural efforts, by what Denman has denominated a *spontaneous evolution*; the arm of the child ascending a little, (not much, however, as Gooch has well observed,) and the breech descending into the pelvis, so that under the breech presentation the child comes away. In general, however, unless the child be softened and relaxed by death, it can scarcely undergo that doubling in the pelvis, which is necessary to allow of its coming forth in this manner. I suppose, therefore, that in nine cases of ten, or it may be that in nineteen of twenty, where evolution occurs, the fœtus is destroyed; and sorry I am to add, that as a general mode of delivery it cannot be relied on. How much is this to be regretted! Happy would it be for you and for the mother, and for the child, if under the arm presentation, as under that of the nates, the fœtus might be expelled unaided by the accoucheur. Many a vagina would be saved, many a uterus hereafter to be torn would be preserved, and many a death which now must take place in the course of the next few years would be prevented! But the only cases in which I can recommend your trusting to this spontaneous evolution, are those in which you cannot effect the turning of the child in the usual way, or those in which the tendency to evolve is obvious. You make your attempts and fail, then the evolution may be properly essayed; or, perhaps, examining with care, you perceive the arm moving, or by the side of the arm the thorax or flank beginning to protrude: perceiving in this manner obvious symptoms of evolution, you say, I won't interfere here; a meddling midwifery is bad, the natural efforts being clearly engaged in effecting the evolution, I will not obstruct them. I was called, some few months ago, to a case in the neighbourhood of the London Hospital, a presentation of the arm, attended by a gentleman of some obstetric tact and talent. In two minutes after I entered the room, with scarcely a complaint on the part of the woman, the arm presenting, the child was brought away. As my predecessor had been labouring without success to deliver, this speedy abstraction of the child occasioned no small manifestation of surprise, and when we were apart, my friend asked me how the —— it was possible I could deliver her so easily and speedily after he had laboured so much and to so little purpose? To say the truth, said I, I did not deliver her at all; for on reaching the bed side, I found the spontaneous evolution was nearly completed, and I had only to hold forth my hands till the child dropped into them. (Laughter.) To another case I was called, where two practitioners had tried to turn the child and failed, and where I tried myself, and failed too. Finding that perseverance would burst the uterus, let us wait, I said, to see what the natural efforts will accomplish; if they do not effect the delivery, further measures may be used, but do not let us distrust our great and kind mother too soon. In the course of an hour, the child came away under a spontaneous evolution, effected by the natural powers, and the woman did very well; and we all found that we did more service by sitting down to the dinner table than by working at the bed side.

However clumsy, and however rough, and however dangerous the practice, yet, whenever you have a presentation of the shoulder or arm, I am compelled to admit, that on the whole the best general practice is to carry the hand into the uterus, and to bring the child away by the operation of turning. The arm hanging forth, you take off your coat, remove the sleeve of the shirt, lubricate the arm, and particularly the hand, and then, *arte, non vi,* with the fear of lacerating the womb before your eyes, relentingly, tremblingly I had almost said, if indeed a surgeon may tremble, you carry the hand into the uterus, as I now do, and draw down the feet of the child, always with the risk of tearing the genitals, even when you operate in a manner the most skilful and dexterous.

I have repeatedly observed to you, that in ordinary labours you should be careful not to interfere too soon; but here is a kind of exception. Where you have a presentation of the shoulder and arm, and turning is obviously necessary, the sooner you operate the better; for if you delay, the womb may contract, and without using great force, the turning may be impracticable. As soon, therefore, as the softer parts are relaxed, and the disk of the os uteri is as large as a crown piece, and your hand, being small, may be carried into the uterus, without violence approach the feet in the way here demonstrated, and perform the operation of turning before the water is discharged, or at all events before it has been *long* discharged; and then, in general, from my own experience I think I may say (having seen many cases) the operation may be effected, and easily enough.—*Et hæc hactenus.*

Means of ascertaining the position of the Child.—Our observations on the passage of the fœtus being concluded, I now proceed to treat of the means whereby, at the bed side in the living woman, we may ascertain the mode in which the child is descending; for it is evident that all our speculative knowledge respecting the passage of the fœtus can avail but little in practice, unless you can at the bed side, when called upon to attend a case, determine in what manner the fœtus is coming away.

The ancients endeavoured to make out the position of the fœtus by means of external examination. Neither would I have the modern accoucheur entirely neglect this manœuvre. Empty the bladder, if necessary, that the situation of the womb may be more easily ascertained; place the woman in a recumbent position, with the shoulders and legs a little raised, so as to relax somewhat the abdominal muscles, and then carry your hand over the abdomen, in order to know the form of the womb, and, if possible, the position of the child in it.

More certainly, however, and with greater ease, the modern accoucheur ascertains the position *by examination,* as it is called; that is, by touching those parts of the child, which are lying within the reach of the fingers. By this mode, when the vertex presents, it may be known from its roundness, its hardness, its sutures, its fontanels, and sometimes by a copious growth of hair. If you feel these, there can be no doubt as to the part presenting. If you make out the large fontanel, and find that it is lying as in this pelvis to the left, then the face will be to the left; if you feel the little fontanel, and that it lies to the right, then the occiput will lie to the right; and if you feel the ear, that of course indicates the position of the child's head. But you may ask me, perhaps, how are we to know the greater and the lesser fontanel? Easily; for where the large fontanel is, there you will find *four sutures*; it is the only part of the head at which four sutures may be found; besides, it is of *rhomboidal* (*diamond*) *shape,* it is of *considerable extent,* and when tangible, therefore, easily recognised. But how are you to know the little fontanel? In general with facility, because it is of a *triangular form* of *small extent,* and has *three sutures* concurrent. Feeling the little fontanel, therefore, of triangular shape of small extent, with a coalition of three sutures, you know the situation of the occiput; and feeling the greater fontanel of diamond shape of great extent, and of four concurrent sutures, you know the situation of the face. In ordinary deliveries, these nice examinations are not required, but in cases of difficulty, where help is required, these points should be ascertained if practicable, as without this knowledge a dexterous and scientific assistance cannot be administered. When the face of the child presents, you will not, I trust, confound this presentation with the breech, though the error has been committed. It is round and soft, and so far it resembles the nates; but then the *nose,* the protuberant *eyes,* and above all, the *toothless mouth* readily known, if you have been in the habit of feeling this cavity, will enable you to distinguish the face. Feeling the eyes, nose, mouth, and forehead, you will not only be able to make out the presentation, but the situation likewise; the *ears*, when felt, further assisting your diagnosis of the position of the head. A *forehead* presentation is probably more easily than any other, confounded with a vertex presentation, when you first feel it. On examining the forehead, you say to yourself, complacently enough, " O, this is a natural case, I shall soon get away." But when you come to examine the case again, feeling what you take to be the sagittal suture, and tracing it to the one extremity, you find there the large fontanel, and on tracing it to the other extremity, your fingers are conveyed to the eyes and nose, when the nature of the case is obvious enough, so that you find you have been congratulating yourself too soon. Where the breech of the child presents, you will recognise this part by its roundness and softness, by the cleft between the buttocks, the genitals, the anus, and if the fœtus be a male, by the scrotum. And do not take a lancet to lay open the child's scrotum, with risk of injuring the testicles; for in these breech cases, where the child is a male, there is sometimes, I suspect, a little water lodging there; and some practitioners, thinking they feel fluctuation, may be impelled, perhaps, to tap,—a meddlesome operation, for which no necessity exists. When, then, you have made out the breech by these indications, the roundness, the softness, the cleft between the buttocks, the scrotum, the genitals, and anus, you will be able, with little further examination, to decide whether the abdomen of the fœtus is lying on the back or front of the parent, as here demonstrated. The arm presenting, you may, if you are *omnipotent in ignorance and negligence*, (laughter,) confound it with the leg; and I have known this feat achieved, though with ordinary care, and under ordinary circumstances, the error is scarcely possible. *Nil mortalibus arduum est.—Cœlum ipsum petimus stultitiâ.* But there is more difficulty in discovering the presentation of the shoulder; so much so, indeed, that even an experienced and good accoucheur may be deceived here. He feels a roundness and hardness, which he mistakes for the vertex; and it may require no small share of examination and discrimination to distinguish between these parts, when the shoulder is altered by compression. The only way of distinguishing, is by making an extensive and repeated examination, when you feel the ribs, the axilla, the arm, and the cleft between the arm and sides, by which the presentation may be pretty clearly ascertained. Under a first examination, you may be easily deceived, but you must make the examination very carefully and repeatedly, as distinction is of the first importance; for if it is a vertex case, you are to do nothing, and if on the other hand, the shoulder present, and hence the weight of the observation, it becomes your duty to turn the child as soon as the feet may be approached. The best mode of making out the position of the child's legs in these cases, is, by examining the position of the hand. When my hand, for instance, is stretched from my side, intermediately, between supination and pronation, the palm is in the direction of the abdomen; the back, in the direction of the back; the thumb lies towards the head, and the little finger to the feet. Now, let us apply this to the case before us; and suppose that you can see only the hand of the child; if the palm is lying in front of the mother, then the abdomen must be in the front, and the legs too. The thumb lying to the left side of the pelvis, I know the head is to the left side; the little finger lying to the right side of the pelvis, I know the feet are there, as you may perceive on removing this handkerchief. Now, knowing this, you may carry up the hand directly to the feet, and are not compelled to enter the womb at random, and to go roaming after the feet, over all the regions of the uterus, for a quarter of an hour, perhaps, before you find them.

In order that you may recognise the child by the parts mentioned, it is absolutely necessary that you should have been in the habit of frequently examining those parts. Now the readiest mode of becoming familiar with the presentation is, to take every opportunity of examining children after birth; and if you do this, in the careful manner in which you ought, after having attended twenty labours, you may become better acquainted with the touch of the different parts, than the man who, in a hundred cases, has been at the bed side like the pet lapdog, and who has examined perhaps with little more intelligence and attention. If you have a case in town, for instance, every time you call you should take the child into your hands, and examine the characters of the different presentations,—sometimes the head, with its sutures and fontanels,—sometimes the face of the child, with its eyes, nose, and mouth,—sometimes, and with equal solicitude, the other presentations, the shoulders, the back, the abdomen, and the nates. Again, in order that you may examine well and successfully, it is not only necessary that you get a thorough knowledge of the tangible parts of the child; but it is necessary further, when the examination is made, that the woman, if possible, should be lying *perfectly quiet*. Now, in many instances, women are so irritable and inflamed, in cases of difficulty especially, that they cannot lie still. In these circumstances take away blood, foment the parts, give sixty or eighty drops of the tincture of opium, or a corresponding portion of Batley's anodyne, and, in a quarter of an hour or twenty minutes, perhaps, you make the examination without disturbance. When examinations are made, the posture of the woman may be various. The ordinary obstetric position is, perhaps, on the whole, the best. If you wish to examine with nicety, let the woman lie on the left side, close upon the edge of the bed, the abdomen facing a little downwards, the bosom thrown upon the knees, the shoulders lying forward, and the loins posteriorly, the very reverse of the position in which the stupidity of the nurses generally places them.

I would recommend you to examine with *both hands*, and with dexterity too. Nature has given you two, and why not employ them! Make the most of them you can. When learning, examine with the *right hand*, as often as with the left; for there may be cases, in which it is necessary to get the equal use of both sets of fingers. But, in saying this, I would add, what is not an unimportant truth, that (the woman lying in the ordinary manner) you will never examine so well with the right as with the left hand; therefore, by all means learn to examine with the left. I am told by practitioners, that they can examine well enough with the right hand; but I have seen the best accoucheurs, and particularly one very able man, who has been twenty or thirty years in practice, and who has delivered far more women than I have done, or ever shall do, who could not by any possibility do that with the right hand, which I easily accomplished with the left. Where a woman was supposed to be pregnant, I put *both fingers* into the os uteri, and felt distinctly the head of the fœtus, although, after examination, he remained doubtful of the pregnancy. Now, I am persuaded, that the only reason of his failure was, that he used the right hand in his examination, in place of the left. By all means, therefore, use your fingers—your fingers of both hands, but give those of the left hand a preference over those of the right; if you examine well, you may actually carry the *two first joints* of the fingers completely *above* the linea ileo-pectinea, while an awkward accoucheur scarcely reaches the brim. In ordinary cases, this is so much the better, for deep penetration is not required; but, in extraordinary difficulties, when nature calls for help, unable to ascertain the position of the child, they don't know how to assist her in a scientific manner.

There is another hint I would give you relating to this important operation, which is, that you are not angels, and need not, therefore, give yourselves celestial airs affecting intuition. Do not content yourselves with merely sliding the fingers a little way up into the vagina, suddenly and smilingly exclaiming, "O, a presentation of the vertex;" for, perchance, it may turn out to be the shoulder, the breech, or the forehead that presents, and to your very great discomfiture, you find, after all, you have mere mortal knowledge—*humanum est errare.* Now I would advise you, in all cases where there is difficulty, to make your examinations repeatedly, slowly, and to examine every part that lies within reach. You cannot feel too carefully, if the examination be really important. If you affect this intuitive mode of deciding, at first touch, what is the presenting part, you will be precipitate and err; but if you take pains to examine, if you insinuate the finger far, and make your examination completely, familiarising yourselves with the touch of the different parts of the child, you will come, in general, to a correct conclusion. When examining, some introduce the whole hand, (a bad practice,) and some a single finger only; if you can succeed with one finger, that should be preferred; but, as a general mode, the better method is to introduce *two fingers*—the *first* and *second* of the left hand, the nails being pared and lard being applied abundantly, especially about the *knuckles.* You should, too, carry the fingers far into the pelvis. When first making the attempt, you will, perhaps, not be able to advance sufficiently, but keeping near the front, a deeper penetration may be easily accomplished.

These then are the principal points to be attended to in making your examinations: first, be familiar with the feeling of the different parts of the child (and I have told you how to acquire this familiarity). Then, in *ordinary* cases, make your examinations *carelessly*, if you please; but if you wish to examine with nicety, place the woman on her left side, close to the edge of the bed, the knees and shoulders lying forward, and the nates posteriorly. Let the parts be prepared for investigation by opiates, fomentations, and bleeding, if necessary. When learning, examine with the left or right hand fingers; sometimes with both; always with tenderness. Never interfere, except where it is necessary; and where it is necessary, carry the fingers as far up into the pelvis as may be. Do not, in dubious cases, decide hastily, from one examination only, but make your examination more than once.

I shall proceed, Gentlemen, when we meet again, to consider the softer parts of the pelvis, and the effects produced on them at the time of parturition.

LECTURES
ON THE
INTELLECTUAL COMPOSITION OF MAN,

Delivered at the London Medical Society by

DR. HASLAM.

LECTURE V.

On Thought.

THIS Lecture being considered one of the most important in the series of the present course, and as it is my object to convey its substance with the utmost perspicuity, this endeavour will, I hope, apologise for such repetitions as may be considered necessary for the purpose of elucidation.

It will be recollected, that when we entered on the subject of the physiology of mind, it was proposed, in the first place, to ascertain, according to the nature and construction of a newly-born infant, what were the circumstances of this state of existence, that act on it to continue life, and to display its intellectual phenomena? And secondly, what does its mind subsequently derive from its own elaborations? The former question, as far as it relates to its intellectual acquirements, has been discussed in the lectures on perception, memory, volition, language, reason, and imagination; and it now remains, to examine the nature of our acquirements, from the distinct operation of the mind itself. Thought and Reflection, are used as terms importing the same signification: but to the present time, it is not clearly ascertained, what is, or ought to be, the meaning of either. Thought, I should define, to be that operation of the intellect, whereby it elaborates its peculiar and intrinsic attainments. It is the active operation of the mind; it implies knowledge as its basis; that is, the recollection of its perceptions and imported information: it requires the power of fixing the attention to the subject, which is an act of volition, and it includes the exercise and estimates of reason: and this co-operation is necessary, to constitute the process of effective thought. Thought, is therefore a complex or general term, involving the premises above mentioned. Thus, the recollection of our perceptions, or of the information or knowledge we have imported, is merely an act of memory: to narrate events in the order of their occurrence, or to recite by heart so many sentences or verses, is likewise an act of recollection: but as we cannot think without materials, the recollection of these perceptions, or of the terms that by convention represent them, is indispensable. Let it also be understood, that whatever may be the subject of thought, if the attention necessary for its investigation be not applied, the efforts will be ineffectual, and the mind will wander, or ramble from one subject to a variety of others. Notwithstanding the most enduring attention, if the estimates, proportions, or calculations of reason, be not brought to bear on the particular subject, the mental elaboration will be rendered vague and hypothetical; and it must also be taken into the account, that *language* is the medium in which thought is conveyed: and according to my own views of this process, language is also the medium in which it originates, or by which it is conceived.

Of all the difficulties which man has to contend with, the prejudices of early education, are the most obstinate and insurmountable. Many opinions have been imbibed with our earliest advances: they have been impressed by authority, at an age when the mind was inadequate to form its own judgment, and subsequently, have been rivetted on our intellectual frame: in some instances by the promise of advantage, but more frequently by the excitement of terror, or by the denunciations of punishment. These prejudices subside deeply into the recesses of our mental constitution; and in their secret growth traverse to such an extent, that it is impossible wholly to eradicate them.

Of this nature is the general opinion that has been formed concerning thought, or the act of thinking. It has been considered altogether a *spiritual* process, and it has likewise been held, that any other manner of interpretation, would introduce and countenance materialism. This is a most mistaken and absurd inference, and appears to have arisen from our ignorance of the actual nature of the process of thought. In a former lecture it has been explained, that all the living functions, and all the intellectual capacities on which the mind is built up, are to be considered as the endowments of a divine cause, and are not to be expounded by any material solution. Ordinary observation will convince us, that the human mind is reared, or formed, by the excitations of the external world, and from its own intrinsic achievements; and the assumption of a spiritual interference would destroy the whole fabric of intellectual physiology, and abolish the responsibility of man. The philosophers to whom I allude, have conceived thought to be some spiritual contrivance or elaboration, and for the purposes of communication, have supposed that it afterwards became invested with the appropriate term: in fact, according to the manner in which we ourselves enter the world, the abstract thought comes naked into the mind, and for its appropriate display, is subsequently clothed in language. But of these secret workings of the spirit, entelechia or soul, we are not conscious; nor are we aware of any effort we make to array them in a befitting garb: and yet, we are conscious of all our acts of intelligence, or mental exertion. We are conscious that we perceive objects by our different senses,—we are conscious that we know, or are acquainted with them when they recur,—we are conscious, that by an act of the will, we can in many instances recal or remember them,—we are likewise conscious, when such privation occurs, that we cannot recall or remember them:—we are conscious, on some occasions, that we recollect the *object itself* when presented, but cannot recall or remember the *name*:—we are conscious of directing and confining our attention to any particular object or subject; and we are equally conscious, when we employ degrees of comparison, or numbers, to form the estimates or calculations that are denominated reason.

It has been already ascertained, that we can have, by recollection, phantasms only of visible objects; and that the perceptions of the other senses, (excepting in certain morbid states) can only be represented or recalled to memory by words. Where shall we then find the phantasms or naked abstractions of perfumes and stenches, excepting in the name? Where but in the viands and beverage themselves, or in the words by which we have designated them, is the spiritual basis of those articles of food and potation, which invite or disgust the palate, to be found? What phantasm or naked abstraction can we recall of the perceptions we receive by the organ of touch, but in the *words* we employ to discriminate the qualities of the substances we feel?

It is a common expression, that we are astonished, or lost in amazement, at the rapid succession of our thoughts; but according to the spiritual interpretation of thought, we ought to be impressed with two-fold wonder; as according to the common opinion, it is a double process; namely, the conception of the naked thought, and its subsequent investment in language. When we are asked a question, the *words* which convey its meaning, are sufficient to enable us to comprehend it, and the spirituality, if any, must be contained in the words themselves:—and when we read, the mere words, if judiciously selected, and properly arranged, convey the sense of the author;—and by these *words alone*, we are enabled to estimate his knowledge and talent; and if he had lived two thousand years ago, his words are as intellectual, and as fully impregnated with the spirit of his mind, as at the moment he wrote them. Man, and the rest of the animal creation, enjoy but a limited existence, they perish, and decompose into other forms of matter:—the vegetable kingdom moulders away:—metallic substances oxydize, even marble is corroded and exfoliates:—but words remain unchanged, and survive the extinction of the race that produced them. These *words* constitute the immortality of thought;—they are the perpetual lamp by which we peruse the achievements of heroes, and the wisdom of philosophers; — the splendour and subversion of empires;—and they possess the incitements to feeling and enthusiasm,—they animate us by the force of example, provoke mirth, excite pity, and constrain tears; and from distant ages, kindle the holy flame that ascends from the altar of liberty.

The advocates for this spiritual conception, which is said to constitute the naked and abstract thought, and which is afterwards clothed or fitted with a term; have not even attempted to explain how they are impressed, when this naked or abstract thought is presented to their minds: and it is certain that it must remain a secret, an inviolable secret, until it is conveyed by *words* to the ear, or by characters to the eye: and they have still less detailed the process by which the naked thought accommodates itself with the appropriate term, from the vast vocabulary, of which even ordinary minds are in the possession. According to this hypothesis, it may be supposed, that when the word is uttered to the ear, or conveyed by characters to the eye, the spiritual connexion ceases, or, that the co-partnership is dissolved, and that the spiritual portion retires into some recesses of the sensorium, to be in readiness for a future occasion, or "wastes its sweetness on the desert air;" but of this *separation* we are as little conscious, as we are of the imaginary union. If this be not the process, then we may conjecture, that the spiritual influence continues to adhere to the word, both when it is uttered by the voice, and exhibited by characters to the organ of vision. There is, however, but little probability that words possess any thing but their intrinsic meaning, or the sense annexed to them by convention or authority; and which is unfortunately subject to certain shades of difference, and degrees of variation; and sufficiently account for the disputes and contentions that have arisen on many important subjects of discussion. Those who have contended for the spirituality of thought, have assigned to this phantasm, if such it be, other and more important offices. It has been supposed to possess a presiding and directing power over the mind; influencing human actions; and has accordingly been considered as a silent monitor in affairs of intricacy,—guarding us from the temptations that surround our species, and over-ruling our evil tendencies. It must be evident, that the admission of such a principle, would be equivalent to the endowments of instinct, and would not only place us on a level with the brute, by superseding the counsel of our reason, and circumscribing the freedom of the will:—but such acknowledged actuation would destroy the whole of our moral responsibility. When I have so strongly contended against the spiritual constitution of thought, and more particularly, against its presiding and directing energies, it must not be inferred that such opposition has a tendency to support any principles that conduce to materialism. On the contrary, it was impressively stated at the commencement, that all the vital phenomena, and displays of intellect, resulting from a conjoined system; so far from partaking of a material character, were repugnant to such explanation, and could only be viewed by the philosopher as the establishments of divine wisdom, and differing altogether from the exhibitions of matter. However mysterious and inscrutable the nature of the capacities may be, by which we perceive, remember, exert volition, and commute the perceptions of the objects in nature for a significant sound; yet the steps and progress by which the mind is built up, reared, or constructed, by the excitements of the external world, and by its interior operations, are fully displayed, and become the fair subjects of observation and experiment.

> "Nec Deus intersit, nisi dignus vindice nodus.
> Inciderit."

If it were necessary to continue this refutation of the spiritual agency of thought, a doctrine, which its advocates have in no manner condescended to stabilitate by any arguments, excepting the supposition that its rapidity was so wonderful, as to render it inexplicable by any other hypothesis; we should of course observe, that a process so important, must be subject to certain laws or regulations, and which, from the consciousness that attends every mental act, we should be able to discover. These advocates, however, have neglected every attempt of this nature, and to them our thoughts appear to

> "Come like shadows, so depart;"

or to be

> "—— likest hovering dreams,
> The fickle pensioners of Morpheus' train."

If our minds have been properly disciplined, we are fully satisfied that we possess the power of thinking or reflecting on any subject, by a process of which we *are* conscious, without any spiritual promptings. With regard to the rapid succession of our thoughts, it is most evident that the current would be impeded by the double process, of first conceiving the marked thought, and subsequently clothing it with the befitting expression. Let us, however, advert to the difficulties we experience, and to the tardiness of the process by which we learn to read; which consists in acquiring the elementary symbols of letters, called the alphabet: when these have been rendered familiar to the eye, and the articulate organs have been drilled to pronounce them, and the ear has adjusted the imitation of the sound: these individual letters are to be joined to form syllables, and these united to compose words, which words, possessing their intrinsic meaning, are to be arranged into sentences; and of a greater or less number of these sentences, all books or volumes are composed. When wo duly consider the time that is consumed in this elementary attainment, and contrast it with the celerity, with which in our maturity we can peruse pages of light and entertaining reading, and imbibe the contents: much of the astonishment at the rapid succession of our thoughts will vanish; and a further illustration may be adduced in the extreme quickness with which some persons accustomed to figures will cast up the long columns of a ledger. If our perceptions be the elements of our thoughts, as letters are of words and sentences, there can be no reason to suppose, that our thoughts succeed more rapidly, than our perceptions are attained by the sensitive organs; and if they were to succeed faster than the voice could utter them, they would be of no utility, and tend only to our embarrassment. It is often asserted by undisciplined orators, who are unable to proceed in their attempts, that they are overwhelmed by the rapid flow of their thoughts; which assemble so multitudinously, that they cannot be individually apprehended: this is however but mere assertion, and a very lame apology for confusion of intellect. It is fair to infer, when this happens, that the naked, abstract, or spiritual thought, is of no use, and ought to be regarded as an inconvenient and distressing intrusion,—and it may be remarked that this supposed tumultuous assemblage of thoughts, is not very dissimilar from the ordinary character of delirium. Whoever has perused a great number of volumes, without the attention to understand them thoroughly, or has not duly reflected on their contents, so as to identify them with his own thoughts, will never be able effectually to proceed beyond a few sentences: and this arises, not from an overflow of intellectual material, but from a lack of comprehension, digestion and arrangement. In like manner, many persons will correctly describe events they have witnessed in the order of their occurrence, but if this series of narration be disturbed, they become confused and are unable to proceed. In a similar way we learn the multiplication table in a regular routine, and continuously, are able to repeat it: but although the pupil can perform this, it is a considerable time before he can invert the order, or answer an individual selection; which accords but indifferently with the unerring dignity of a spiritual basis. By proper discipline, and a cultivation of the habits of reflection, we may render the act of thinking, to a considerable extent, subject to the will: that is, we may become enabled to direct our thoughts to particular subjects, and likewise, to protract the process; and this effort of the will, is termed attention. We can well understand this voluntary direction of our thoughts to particular subjects, and become sensible of its protracted endurance; but if our thoughts consisted of these spiritual abstractions, which fortuitously present themselves, and vanish spontaneously, they would be *involuntary*, supersede the necessity of cultivation and intellectual discipline; and might be compared to the involuntary actions of the heart, or the peristaltic motions of the intestines.

Having thus endeavoured to subdue the existing prejudice, that thought is a spiritual elaboration, and a twofold process; it now remains to investigate its nature, as the most important subject of intellectual physiology, and to demonstrate its constitution from observation and experiment. The perfection of the human intellect, in comparison with the mental displays of animals, consists in the capability which man possesses, to communicate and preserve his intellectual acquirements: and this distinguishing excellence animals are incapable of attaining by any mental exertions of their own, or by any mode of tuition: and this fact sufficiently explains why animals are stationary, and man progressive. If we inquire the means by which he can communicate and preserve his intellectual attainments; the answer is immediately afforded, by *language*, and the symbols that represent it: and to the acquirement of which, no animal is competent. Some of the bird tribe, as formerly observed, may be taught to pronounce many words, and even sentences, very distinctly; but no evidence has yet transpired to convince us, that they possessed the slightest comprehension of the meaning of the sounds they have been taught to articulate: nor is it possible, by the united perceptions of the eye and ear, to impress on them that each alphabetic character has its separate and appropriate sound. This is the manner in which the child is taught the elements of reading, but without any such instructions, the child, by continuing in the society of human beings, will acquire the spoken language of the people with whom he resides; whereas the most docile animal, after continuing in the same family for years, will never be able to comprehend an ordinary question, and still less to communicate the proper reply. It is not necessary to give the solution of this difference between man and animals, and point out wherein the incapacity of the latter consists: it is sufficient for the present purpose to know the fact. By the acquirement of language, man is enabled not only to employ a word, which by convention is the substitute for the natural object, but likewise various adjected particulars, as colour, shape, magnitude, motion, weight, smell, taste, peculiar sound, and tangible impressions, and also by the register of a word, he can designate the order of events, and characterise that which has preceded, and that which is subsequent. In fact, language, by the construction of sentences, affords us the means of communicating all the forms and vicissitudes of the external world, as they have occurred to ourselves, and as they have been observed by others: to describe the emotions we feel, and the peculiar notions or thoughts, which our own minds have individually elaborated. From the constant employment of language, we become so familiar with words, their accredited meaning, and skilful arrangements for the purpose of intelligence, that they constitute the identity of our minds. Of visible perceptions, by strong recollection, we retain the images or phantasmata in conjunction with the word designating such object; but not of the perceptions of the other senses; and it is evident that the mere phantasm, without the word, could be of no utility for direct communication. Thus words are intelligibly communicated for our actual perceptions, and this commutation must necessarily be adopted for every event that has passed, especially for all transactions anterior to our own existence, and for the observations of others. Of what can our thoughts then consist but in the application and arrangement of appropriate words? There is an intellectual capacity connected with a living system, by which man acquires knowledge, but words are the medium by which such knowledge is attained, and when he proceeds to review or extend such knowledge, *its constituent elements must be employed*. If the spiritual doctrine has been refuted, there remains no other source of our thoughts but that of words; or sounds bearing an intrinsic signification; and when we consider the immense catalogue or vocabulary which we possess of these words, our conviction will be strengthened, and we shall also find, that by the increase of knowledge, and the progressive improvements of the mind, the stock will be considerably augmented. It is not to be inferred, that we think exclusively by individual words, for we think also by sentences formed into maxims, proverbs, and aphorisms, which are known and undisputed truths, and the result of systems abbreviated for convenience and dispatch. In proportion to our intellectual advancement we frame abbreviations, not only of words, but of sentences, and such condensation or short-hand, as is applied to written character, may be equally adapted to the forms of speech as the material of thought. If these reasonings should not be altogether satisfactory, it only remains to make the direct experiment: and the apparatus for this investigation is furnished by the mind of every individual.

The basis of thought is knowledge, for without knowledge as the indispensable substratum, there would be no materials for its operation; and the endeavour, even in our waking moments, would only be a confused assemblage of occasional phantasmata, and words without arrangement, like the insubstantial tissue of a dream. As we are likewise conscious of all our intellectual processes, we shall find, on a patient examination of our own minds, during the act of thinking, that we are occupied in the selection of words, and in their arrangement into sentences: and, by due attention, we can detect ourselves in the actual performance of this operation. For this purpose, it is necessary that we should acquire a competent degree of control over our minds:—that we should be alone, and exempt from all interruption:—and for the due performance of the experiment, should select a subject, with which we are but little acquainted, which renders the process more deliberate, and consequently of easier detection. On subjects that are familiar, that we have frequently investigated and discussed, there is acquired such a rapidity of exercise, that the detection of the process becomes considerably more difficult. By attentively contemplating the knowledge we possess on any particular subject, and which can only be revived by words,—we shall find that the arrangements we make, will be, either by words according to grammatical construction, formed into sentences by phrases, maxims, quotations from authors that illustrate the subject,—or by known truths, definitions, or axioms, that we hold as accredited data. Whenever our thoughts are employed on the objects we have seen, the visible phantasms of these objects,—if the memory be sufficiently retentive of the perception,—will be presented in conjunction with the word, and the operation, in the different steps of its progress, must be submitted to the estimates and calculation of reason. In some persons this process is perfectly obvious, and we are able, when they are occupied in thought, to observe the motion of their lips, as when they are speaking aloud:—and according to my own observation, the same motion of the lips is noticeable in the generality of persons when they are counting,—an operation, that is perhaps more difficult than the ordinary selection of words for the materials of a reply, as the slightest error would destroy the whole process, and compel us to commence anew.

Thought, comprising its enumerated constituents and detailed process, is the most perfect and exalted elaboration of the human mind; and when protracted is a painful exertion; indeed, the greater portion of our species reluctantly submit to the toil and lassitude of reflection: but from laziness, or incapacity, and perhaps in some instances from diffidence, they suffer themselves to be directed by the opinions of others. Hence has arisen the swarm of critics and reviewers, those clouds that obscure the fair light that would beam on the mind of man, by his individual reflection, and through his existence degrade him, by a submission to assumed authority;—a voluntary blindness, that excludes him from the observation of nature,—and through indolence and credulity render his noblest faculties, feeble, assenting, and lethargic: and delude him, to barter the inheritance of his intellect for a mess of pottage. It must be the result of every man's experience, that when our thoughts are long confined to the investigation of a particular subject, that its continuation beyond a certain duration becomes irksome:—that our further efforts produce languor, and are found to be unavailing:—and should this notice fail to discontinue our attempts, that confusion necessarily ensues. It is with the mind, as with the body,—for in this state of existence they are inseparable,—that regular exercise will confer vigour on the muscles, and enable them to continue their exertions for a longer period, without fatigue:—so by assiduous discipline our intellectual application may be considerably protracted:—and, to employ a common metaphor, although the mind of one man thus trained, may continue on the wing for twice the duration of another; yet there is a period when his efforts must terminate, or distraction will supervene. As that exertion of the will which we term attention is thus limited, and as the active process of thought implies this fixed and concentrated attention, we ought, in the next place, to inquire what must be the condition of the mind, when we are unengaged by any direct mental occupation, and when the volition is consequently relaxed? It will be found that the phenomena vary, according to the degree of volition that is exerted. Perhaps sleep, especially that which is termed sound or profound sleep, is the state that ensues, when the influence of the will is most completely withdrawn, and during which there is an abolition of consciousness: but in addition to this absence of volition, there prevails a diminished state of the sensibility:—the sensitive organs are not stimulated by the ordinary intensity of excitation which urges them to perceive when we are awake, and the involuntary motions are also considerably less active. In that sleep which is less sound and refreshing, there are usually observed certain mental excitations or intrusions, which have been variously considered as phantasms, delusions, or sallies of imagination, denominated dreams, and in these the will appears, on many occasions, to possess considerable activity; as, according to the impression, we endeavour to avoid danger, and exert our efforts to attain objects of desirable possession. It is not here intended to investigate the nature of sleep, together with its mental ecstacies and perturbations; although its importance in the animal economy demands a profound investigation: the present inquiry only extends to that state of intellect, which exists in our waking moments, when the attention is relaxed, and the energies of the mind are not directed to the rigid examination of particular subjects. The state of being awake, implies a promptitude for action in our corporeal frame; and also that the organs of perception, are prepared or on the alert, to be excited by the objects in nature, according to their separate offices; but it does not imply their immediate or active exercise; and with regard to the other operations of the intellect, it presumes the capability of their display, but not their actual performance. It is well understood that this relaxed state of our mental energies, during the time we are awake, has been termed reverie, musing, and some persons have considered it as a kind of day-dream, or dreaming awake. We have already admitted the power we possess of directing the mind to any particular subject of thought; but it is equally true, that we are *not* capable, by any voluntary exertion of clearing or evacuating of the mind, during the time we are awake, of its exciting assemblage of those abrupt phantoms and floating recollections that constitute reverie: for it will be seen that the possession of such power would enable us voluntarily to produce sleep. Thought being considered a voluntary exercise of the intellect: the only solution I am able to afford concerning the nature of these reveries, is their resemblance to those perceptive mutilations which ocular spectra present, and which are involuntary phantasms of a particular organ. But they are more intimately allied to our dreams, which are likewise involuntary presentations, and are the spectra, not of the mere organ, but of the entire intellect, and like our reveries, vary in consistency or abruptness in proportion to the degree of the relaxation of the will. In this unbraced state of the mental faculties, the subjects that intrude are transient and indistinct, the mere glimpses and shadows of effective thought.—Under the influence of these day-dreams, we often find ourselves occupied on some subject, but are incapable of detecting how it was introduced; and we lose it without any knowledge of the manner of its escape In many instances, these musings are blended with particular passions, and rendered more vivid by our hopes and apprehensions. Sometimes we indulge in the golden prospects of opulence and advancement, or fascinate the sense with the projected enjoyment of a higher rapture,—extend the views of ambition—and multiply the sources of gratification and happiness.—At others the scene changes to gloom and dismay, our mental wanderings assume a hateful tinge, we appear destined to exchange our present condition for the poor-house or the prison, and the probable future only suggests a succession of miseries and disaster. In these phantastic visions, which can only be accounted for by the relaxation of the attention, the defect of that energy which contributes to effective thought,—many of our species consume a considerable portion of their time, and according to the temperament that may prevail, their lives are chiefly passed in the ideal grasp of unattainable wishes, or in the despondent forebodings of a pusillanimous spirit. From the nature of the human mind, from its necessary union, in this state of being, with a living system; and from the due consideration of that condition, which we denominate *being awake*, contrasted with the phenomena of sleep: we shall be aware, that in our waking moments, some degree of mental activity must prevail. The very nature of vigilance, implies that susceptibility and readiness of the perceptive organs, that they become excited by their appropriate stimuli: and the connexion that subsists between our recollections will of course operate to continue the excitation. These reveries, notwithstanding they may serve to revive some memoranda, that would otherwise have faded, are the offspring of indolence and retirement:—the scattered spawn of that instability of character, which a generous intercourse and fair competition with the world would have fixed and matured. These illusive idols of the mind,—these broken toys of vanity and imagination, like the clouds that pass over us in succession, leave scarcely a trace of their figure; and although such day-dreams may be estimated by their idle votaries, as delightful pastimes, they will be considered by the philosophers, as the bane of salutary thought and a loss of our existence.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XI.

On the Difference between Quantity and Intensity of Electricity; on the Natural Phenomena connected with Electricity; and on the Excitation of Magnetism by Electricity.

Gentlemen,—The conclusion of the last lecture brought us to the subject of chemical decomposition, as connected with electricity, and it will be remembered, that we found that the different elements of bodies were attracted by different electrical poles, according to certain laws; and that when we submitted substances considered as the proximate elements of bodies to electrical action, we found that the acids and substances containing oxygen, and other supporters of combustion, such as chlorine, iodine, and fluorine, were attracted by the positive pole; and that the alkalies, metallic oxides generally, and all substances in which the inflammable elements predominated, were attracted by the negative pole; so that we came to this general conclusion, that among the elementary bodies, a certain number would always be attracted by the positive, and a certain number by negative poles. Now this is found to be the case in all instances when substances are submitted to the action of the poles, with freedom of motion in the presence of water; and we find that the hydrogen of the water, with the inflammable element, whatever it may be, goes to the negative poles; whilst the oxygen of the water, or the acidifying principle, is attracted to the positive pole. We therefore had occasion to point out that a division of bodies might be conveniently founded on these facts, arranging them into two great classes, the *electro-positive* and *electro-negative* bodies, and this is the arrangement we have adopted in this course of lectures; and although there may at first appear to be a little confusion of terms, yet if you only remember that there is an electro-positive side of the battery and an electro-negative side, I think you will have no difficulty in recollecting the nature of the division which has been made.

Now, in the experiments you saw the other morning, there were some facts loosely passed over, because our time did not then admit of discussing them more fully, relating to *quantity* and *intensity* in the Voltaic apparatus. It might have struck you with surprise, that although we had an instrument capable of deflagrating the metals, and of keeping up a strong current of electricity from the two poles, yet that I could handle the wires without feeling any powerful shock; but that depended upon the *intensity* of the pile. If I had used a great number of small plates instead of a few large ones, I should not have obtained the brilliant effects which you saw, but I should have had a more powerful shock, and there would have been a greater tendency in the electricity to escape through bad conductors generally; and you must remember, that the human body is a bad conductor, and that the cuticle, more especially, is a non-conductor, and therefore requires a powerful *quantity* of electricity to pass through it, so long as the cuticle is dry; but if you moisten it you will have a powerful and painful shock produced by making a communication between the body and the poles of the battery.

These distinctions between quantity and intensity were admirably illustrated by Mr. Children, who constructed a battery, the plates of which were two feet eight inches wide, and six feet high; they were twenty in number, and were fastened to a beam, suspended by counterpoises from the ceiling of his laboratory, so as to be easily immersed into or withdrawn from the cells of the acid. The effects of this apparatus upon wires and good conductors were intense; he could easily fuse the metals, and he kept a piece of platinum wire in a state of red heat for a long time; the light, too, was intense, but not the slightest shock was felt when the conductors were touched; so that, you observe, when we increase the amount of *surface* we increase the *quantity* of the electricity; but when you increase the *alternations* you increase its *intensity*.

Sir Humphrey Davy has thrown out the idea, that the electrical and chemical powers of bodies may depend upon one and the same cause; that this cause acting upon masses of matter, exhibits itself in the natural phenomena of attraction and repulsion, and that acting upon particles of matter, it produces chemical attraction and repulsion; so that when bodies, in opposite states of electricity, are brought together, they unite chemically, and that the phenomena of heat and light which attend the union of some bodies, may be produced by the destruction of the two electricities. Thus far has theory carried us.

I adverted to the chemical effect which the fluid, intervening between the two poles of the pile, was supposed to have in increasing the quantity of electricity; and to illustrate this, I shall take some vessels containing water, a weak acid, and a stronger acid. With the water only, I find that very feeble effects are produced, no spark can be produced; with the weak acid, a spark is produced; and with a stronger acid, a permanent light is obtained. It is clear, then, that independent of the surface of the plates, we have a mode of increasing the quantity of electricity by the fluid which we may place in the cells of the trough. Here is an apparatus, consisting of a series of about two hundred plates, about four inches by six; by immersing them in water, containing about thirty parts in the hundred of acid, you see that from the poles of this battery a brilliant spark is kept up, and of sufficient power for all the experiments to which electricity is usually applied in chemistry.

I have spoken, in various parts of these lectures, of *currents of electricity*, and I have talked of currents passing from one direction to another, passing from the positive to the negative pole. Here is a wire connecting the two poles, and we imagine that a current of electricity is kept up, by passing from the positive to the negative pole, and that this current is continued throughout the apparatus. This is an hypothesis, which is true, as far as it goes, respecting the current; and now, if we apply a magnet to this wire, we shall have *magnetic action* exhibited, and that of a very singular description. You see that the poles of this magnet run in the usual magnetic meridian, but if we bring the magnet under the wire conducting the electrical current, we shall find that the direction of its poles will be changed, depending upon the direction of the electrical current in that wire; and now strange to say, the south pole of the magnet is pointing north, and the north pole, south. The observation of this fact, originally made by Ousted, has led to many other important experiments of another kind, connected with the magnetism of the wire; and these discoveries have led us to suspect, that the existence of a *magnetic vortex*, or a magnetic current put into motion by the electrical current of the wire, giving rise to this phenomena. If we reverse the direction of the electrical current, and reverse the direction of the magnet, it is a fact worthy of observation, that the wires connecting the poles of the battery are in a magnetic state, which may be shown by their power of attracting iron filings; and we shall find that the quantity of iron filings which will be attracted by the wires is very considerable, but that the filings immediately fall off as soon as the connexion is broken between the battery and the wires. Hence it is very evident, that a magnetical current is connected with the electrical current. I wish only to point out to you a few leading facts, and our time will not allow us to do more. Suppose we take a bar of steel not magnetised, and place it at right angles to the conducting wire, we shall find that it becomes magnetic; and then by placing it again at right angles, it becomes polar, from the direction of the current in the wire, as I have stated. Now that you may form some notion of what happens in the conducting wire, let us suppose this brass cylinder to represent the wire carrying electricity from one to another. Here is a representation of the magnetic current made upon the cylinder by a coloured line, passing along the cylinder at right angles with the electric current, and the consequence is, that you must have a spiral current passing around the central column, representing the wire; you have a north direction of the magnetic current on the one side of the cylinder, and a south direction on the other; and hence the oscillation in the magnetic experiment. Here is a quantity of iron filings upon this disc, and you see that the filings are all magnetic, from my having touched them with the wire; if I pass a steel bar through these filings, and then put it into a cylinder, around which an iron wire is twisted, connected with the two poles of the battery, and hold the cylinder perpendicular, the bar will still be retained there by magnetism, although, like Mahomet's coffin, it be suspended between heaven and earth; it will remain there as long as the current of magnetism is kept up between the extremities of the cylinder, and as soon as that communication is broken, the effect ceases. When the electrical current, conveyed by a wire of this kind, and the magnetical current, are carefully put into action, it has been remarked, that the pole of the magnet has a tendency to revolve around the electrical wire, and that if we could give to this full freedom of motion, we should see manifested the magnetical current, and the wire of the negative pole following it in its circumvolution. For the illustration of this fact, we are indebted to Mr. Faraday, whose apparatus you see here, which shows the fact in a very beautiful way. A great variety of apparatus has been made upon this principle, but I think without any great improvement upon this. By using a spiral wire, and by placing a magnet within it, as you see here, we have a most delicate means of ascertaining the excitation or existence of very minute currents of electricity; for instance, if you make a communication between these two extremities, in a single pair of plates, and bring a magnet near the conducting wire, you will have a sufficient magnetic current established to cause the magnetic needle to turn either to the right or left, according to the direction of the current. We have also numerous instances of electric excitation occurring in the contact of metals, especially at different temperatures; and we have an opportunity of showing this excitation, by the deviation of the magnet from the magnetic meridian, and such phenomena have been called thermolectrical, so that we have an opportunity of showing feeble states of electricity by this means.

I have anticipated a good deal of what I intended to say on the subject of *natural electricity*, and therefore it is not necessary to detain you long, although it is a subject of considerable interest. Since, then, so many sources of electricity exist, being produced, as I before mentioned, by the change in the form of bodies, by evaporation, and so forth, it is pretty obvious that electricity must be continually active in nature. Its effects are exhibited on a magnificent scale in the thunder storm, which results from its accumulation in the clouds, as was first pointed out by Dr. Franklin. He ascertained the real nature of the thunder storm, by sending a kite up into the cloud, and charging some Leyden jars with the electricity transmitted from the cloud by the line of the kite. He also suggested the propriety of using *points* on the tops of houses, for the purpose of receiving the electricity from the cloud by degrees, and, in fact, he showed that if a ball were appended to it, the whole cloud would explode. There is a curious circumstance in connexion with this, which shows the obstinacy of political prejudice, and it was deemed right that *balls* should be used in this country on the tops of the conductors, because Dr. Franklin was an American. I only remember to have seen one of these actually mounted,—it was on the Calton Hill at Edinburgh, and whether it is there now or not, I do not know; but it was a very absurd thing. Now the conductors affixed to houses should always be pointed, and the point should be kept in a state of cleanliness, and the conductors should terminate in a moist stratum of earth, or in London it might safely be conveyed into the common sewer. It has been objected to the use of pointed conductors, that we invite the lightning to the point; and that is true to a certain extent, and in gunpowder mills, the conductor should be placed at some distance from the building. The conducting rod should be of copper or iron, and from half to three-fourths of an inch in diameter, so as not to be readily forced. Its upper end should be elevated about three or four feet above the highest part of the building, and all the metallic parts of the roof should be connected with the rod, which should be continuous throughout. As regards the question of what is the safest situation in a thunder storm, we should be pretty safe in the middle of a large room in bed; we should be pretty safe among the feathers, which are bad conductors; but as the bell-wires will conduct the electricity into the room, the bed should be removed from them. It would be well to stand at a distance from the chimney on a woollen rug, which is a non-conductor. When out of doors, I scarcely need to say, that you should never stand under a tree; the tree being moist, the electric fluid generally passes down between the bark and the substance of the tree, splitting it in all directions, and the lightning will pass to the best conductor near it; if any unfortunate animal should happen to be under the tree, it will be killed. The safest plan is to go toward the middle of the field, at a distance from any tree, and to stretch yourself out upon the ground, although that is not a very pleasant situation, especially in hard rain. During a thunder-storm, the earth is in a state of electricity, as well as the clouds, and the light and heat which are produced at the explosion, indicate the annihilation of the two electricities. Sometimes the discharge is only from cloud to cloud, sometimes from the earth to the clouds, and sometimes from the clouds to the earth, as one or other may be in the positive or negative state. The clouds are usually more or less electrical when the vapour, floating about in the atmosphere, is condensed, and the earth being brought into an opposite state of electricity by induction, a discharge takes place, when the clouds approach within a certain distance, and sometimes the electric cloud perches upon a hill, and then discharges itself. The electricity passes through the clouds in a zig zag direction, and the undulation of the air which it produces, is the cause of the noise which we hear called thunder, which is more or less intense, and of longer or shorter duration, according to the quantity of air acted upon, and the distance of the place where the report is heard from the point of discharge. If the danger be great, we have seldom any opportunity to count the time which elapses between the appearance of the lightning and the report: electrical effects take place at no sensible time; it has been found, that a discharge through a circuit of four miles is instantaneous, whilst sound moves at the rate of about twelve miles in a minute. So that, supposing the lightning to pass through a space of some miles, the explosion will be first heard from the point of the air agitated nearest to the spectator; it will gradually come from the more remote parts of the course of the electricity, and, last of all, will be heard from the very extremity; and the different degrees of the agitation of the air, and the difference of the distance, will account for the different intensities of the sound, and its apparent reverberations and changes. If you can count from two to three seconds between the appearance of the lightning and the sound, there is seldom much danger; and when the interval is a quarter of a minute, you are secure. The *water spout* is also an electrical phenomenon; the cloud and sea become attracted toward each other; the attraction of the lower part of the cloud to the surface of the water may be the immediate cause of this extraordinary phenomenon, especially if it should occur in the neighbourhood of submarine volcanoes. (A good painting of a water spout was shown to the class.) It is a curious fact that, although the phenomena exhibited by the *aurora borealis* appear to be electrical, the light very much resembling that of electricity, we have not as yet had any proof of the electrical condition of the atmosphere. Still, however, I think there can be no doubt that the phenomenon is electrical, and is probably produced by the electric light traversing rarefied air.

We have electrical powers exhibited by some animals, as by the *gymnotus electricus*, and the *torpedo*; they are capable of giving very violent shocks, and the apparatus by which this power is generated, is an immense nervous mass situated on the sides of the body, arranged in a number of plates somewhat resembling the Voltaic pile. Now without any discussion as to the cause of electricity in these animals, it appears to be connected with the nervous system, and you may remark the very great supply of nerves sent to these parts, especially in the torpedo or electric ray, in which fish they are twelve times, and in the gymnotus, or electric eel, eight times as large as the nerves which supply any other proportionate part of the body. The animal suffers very much from the use of the organ, and it dies if it be too frequently employed. With regard to the production of electricity in animals, some physiologists have considered, that many of the common functions of animals are connected with electrical actions, and some have supposed that all the secretions are under direct electrical influence, and that, accordingly, some of the secretions are alkaline, others acid. Now all that we can say is, that electricity may be active in some of these cases, but we have not the slightest proof that it is.

As to the *cause* of electricity, we know nothing. I stated, at the outset of the lectures, that it might be explained by admitting the existence of one fluid contained in all matter, and exhibiting itself by the appearances which have been described, whenever its equilibrium is disturbed. Others venting negative and positive electricity when deficient and when redundant. Others have endeavoured to explain it, by supposing the existence of two fluids, and some admit no fluids at all. Some have considered the effects to depend on peculiar exertions of the attractive powers of matter, and have regarded the existence of any distinct fluid unnecessary to the explanation of the phenomena of electricity. This hypothesis, however, is too coarse to be admitted. It has been stated, that when a flame is placed between the two poles of the battery, it will take a direction from the positive to the negative pole, and it has been considered as demonstrating the existence of a current passing in that direction. It is true that common flame will go to the negative pole; but if you take phosphorus, or any acid flame, it will be drawn toward the positive pole. Upon the whole, then, we are in doubt respecting the cause of electricity, and we must be content to remain so, until some new light shall break in upon our investigations.

In the next Lecture, we shall examine the phenomena of radiant or imponderable matter.

FOREIGN DEPARTMENT.

ANATOMICAL AND PHYSIOLOGICAL REMARKS ON THE MEDULLA OBLONGATA.

BY DR. MEYRANX.*

It is known that the medulla oblongata is that part which extends from the commencement of the spinal marrow to the corpus striatum. About the middle of its extent, it is surrounded by a circle formed by the cerebellum superiorly, and by the pons Varolii inferiorly. The medulla oblongata has been submitted to experiments in the different parts of this space, and different functions have been ascertained to belong to its successive portions. The protuberance, as well as the cerebellum, which

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* Annales des Sciences Naturelles.—Août, 1827.

forms the circle of which we have just spoken, divided by an imaginary line which would fall vertically from the centre of the vermiform process to the centre of the protuberance, give two lateral segments, in each of which there exists, according to M. Magendie, a force which impels the animal to turn on the opposite side. These two forces, reciprocally balancing each other, constitute the equilibrium preserved in the standing position. By wounding a hemisphere of the cerebellum, or a half of the protuberance, the equilibrium is destroyed; the animal rolls over on its side, until some mechanical obstacle stops it; this rolling commences on the side injured. To this very singular phenomenon is added, a particular position of the globes of the eyes; that on the injured side being turned downwards and inwards, and that on the other side upwards and backwards. These symptoms are the more marked, as the injury approaches the nearer to the protuberance.

M. Magendie thinks, that below the cerebellum there is another double force, which exists throughout the lateral half of the medulla oblongata; if it be cut transversely, on a level with the fourth ventricle, the animal turns on its feet, and always on the side opposite the injury, with as much precision as a horse goes through the exercises of the riding school.

The same physiologist did not perceive any effects to result from wounding the anterior pyramids, until one of them was cut, together with the entire moiety of the medulla oblongata to which it belongs, and until the medulla oblongata had been divided by a longitudinal section on the median line. After these two operations, he observed that the voluntary motions only were paralysed; this paralysis affected the opposite side of the body.

M. Magendie has never observed any consequence to result from wounding separately one of the posterior or one of the anterior pyramids. We are now about to give a short account of some disorganisations produced in the same parts, accompanied with very marked appearances, and somewhat different from those hitherto observed.

But before detailing these experiments, we think it necessary to remark the number and disposition of the bundles of the medulla oblongata; the situation of the anterior and posterior pyramids, or the corpora restiformia, is known. Between these two last, two longitudinal columns, almost parallel, are observed on the floor of the fourth ventricles, but which do not separate from each other at an angle, like the corpora restiformia; they are covered, especially in man, with a grey layer, below which is situated a white matter, forming a mass of considerable thickness, if that of the anterior pyramids be comprehended. This grey layer, and the subjacent white matter, are generally taken for the posterior surface of the anterior pyramids, but it is an error; it is, in fact, a third bundle, which is perfectly distinct from the two others, and which is called the bundle of the infundibulum, because in the four classes of vertebrated animals, it arises from the corpora albicantia, which always occupy the sides of the infundibulum. It is the junction of these two bundles, that forms that triangular space which is situated between the crura cerebri; this space is bounded anteriorly by the infundibulum, and posteriorly by the tuber annulare.—though superiorly, on one side of the brain, this triangular layer is continuous with the tuber annulare, then with the anterior pillar of the cerebral triangle; and posteriorly, the substance of this same triangular layer is prolonged into the surface of the fourth ventricle; covered by the point of the *calamus scriptorius*, it re-appears below those limits, at the posterior lateral parts of the spinal marrow. We think that this is the bundle mentioned by Mr. C. Bell, to which he refers the nerves of the respiratory system. It cannot be followed lower down in the substance of the spinal marrow, such is the intricacy of this part, or at least this investigation can only be made in the fœtus. The anatomical part which we have just specified, is not very easily discriminated in the adult; but it is made very evident by a vertical section along the whole length of the spinal marrow of a new-born child, but still more so at the age of three months and a half. The reason of this is, that, at this period, the nuclei of the three bundles in question are white, and all the other parts are grey.

It is on the bundle of the infundibulum that a great part of the glosso-pharyngeal and par vagum arise; lastly, the sympathetic derives a very distinct root from it; it is that which the lateral bundles of the valvula Vieusseni furnish. These last bundles are a part, or continuation, of the posterior chords of the medulla. These details are necessary to understand the motion of the eyes, to which we shall allude in the following experiments. It is known that Mr. C. Bell has proved, that the two obliqui, to which the fourth and a filament of the third pair go, fulfil the functions in the involuntary motions of the eye, functions related to those of respiration.

In our first experiment, we laid bare the brain of a young rabbit, and raised the greater part of the left hemisphere, without any other symptoms except blindness of the right eye.

At the end of half an hour we determined to wound the thalami nervorum opticorum, which was concealed till now by the posterior part of the hemisphere. The scalpel having been plunged in its direction, the animal carried its head strongly backwards, then brought it to the position just described, but the equilibrium was lost; the eye on the injured side was fixed downwards and inwards, the eye on the opposite side was fixed in an opposite direction; the whole of the cervical region was flexed obliquely on the side injured; lastly, it rolled over, commencing on the injured side, and continued turning until stopped by some mechanical obstacle. The rest which accompanied this motion, always took place on the healthy side. We recognised the symptoms described by M. Magendie, and we thought we had wounded the left side of the protuberance.

The post-mortem examination enabled us to perceive that we had reached, in fact, the thalami nervorum opticorum, as we intended; but not having exactly calculated for the inclination from before backwards, at which the brain rests on the base of the cranium, the point of the scalpel had traversed the upper half of the corpora quadrigemina, and had penetrated into the substance of the left half of the protuberance; but the bundle of the infundibulum had been traversed. It will be seen that the results are the same, and that the experiment only differs in our having wounded the protuberance at the superior surface, by cutting across other parts, whilst M. Magendie wounded it at the inferior surface. The wounding separately of the thalamus nervi optici, as well as that of the corpora quadrigemina, was not followed by these symptoms.

It occurred to us, on account of the origins of the sympathetic nerve, and the direction of the bundle of the infundibulum, to make an experiment separately on the parts which we had traversed before arriving at the protuberance; we wished also to inflict the same injury on the inferior half of the arch, that is to say, on the cerebellum, as we had on the protuberance.

We began by the superior part; with this view, we raised very nearly a line of the left parietal bone, close to its posterior edge, and also close to the suture, which joins it to the occipital bone. Now the anterior extremity of this last bone is precisely on the line which separates the cerebellum from the cerebrum; we pushed through this small opening the fine blade of a pen-knife through the whole depth of the cerebellum; we took care to incline the instrument from before backwards and downwards, to avoid the corpora quadrigemina, which were not touched; then raising and withdrawing the instrument at the same time, the concave edge and the point of the blade would cut the whole substance of the cerebellum, without having penetrated the fourth ventricle: the division was effected precisely on the sulcus which separates the processus vermiformis from the middle lobe from the whole external part of the cerebellum.

The symptoms which followed the section of the protuberance, were slightly marked. The animal preserved the standing position in a less firm manner, and almost crawling, he always preferred the injured side, and if he did not roll over, at least when he fell, it was always on that side; but his eyes preserved their natural position.

The blade of a straight and pretty large scalpel being pushed by the same foramen in a direction and at an angle perfectly the same, till the base of the cranium stopped the point, the animal carried its head so far back, that the occiput rested on the middle dorsal vertebræ. It kept this position with a tetanic rigidity; the position of the eyes, which had not been altered till now, changed; they were both drawn upwards and backwards; the inferior extremities were extended and rigid; they were deprived of voluntary motion, and even to a certain degree of sensibility, for they only moved when they were pricked, and even that only once when this kind of excitement had been used three or four times; when they were flexed, they quickly returned to extension.

The superior extremities presented a motion not before observed; it was not that of progression, for it was alternate, very quick, and not interrupted. Now, the rabbit limped rather than walked; we want words to express so uncommon a sight; it could best be compared to the alternate motions of their paws, which cats make in purring when they are caressed, and which is vulgarly called *making a loaf*, because it resembles the kneading of the baker. This state lasted two hours, without interruption; it gradually ceased with the strength of the animal; we then opened it.

The whole floor of the fourth ventricle was entirely disorganised, which comprehends the two bundles of the infundibulum to an extent of ten lines across the *tubercule* of the *nates*. The two anterior pyramids were also affected, though not so strongly, for the point of the scalpel was passed out between them in the middle of the sulcus which separates them, about three lines lower down than the tuber annulare, immediately below the corpus trapezoides, and between the nerves of the sixth pair. These experiments were repeated many times following with the same precision, which is not difficult, when the operator is acquainted with the anatomy of the young rabbit, and when he uses the same instruments, taking care to operate on animals of the same age and size. This we effect, by procuring a whole litter.

We obtained the above mentioned symptoms four times, with this single difference, that those of the anterior limbs, that is to say, the rigidity, were transported to the inferior limbs, and *vice versa*, the extension with rigidity and insensibility being transported to the anterior limbs. Both the eyes remained, moreover, in their natural position; in the former injury of the fourth ventricle, they were simultaneously drawn upwards and backwards; there was only this difference in the injury, that, in the second case, the blade of the scalpel had traversed the medulla on a level with the *calamus scriptorius*, that is to say, a little lower down.

From the preceding facts, we may conclude,

1st. That when the fourth ventricle is wounded to a great extent,—that is to say, when a bundle of the infundibulum and half of the protuberance are wounded, we have the loss of the upright position, and the lateral rotation of the body; and, morever, the adverse position of the two globes of the eyes.

2d. When the cerebellum only is divided throughout its whole substance, but without touching the fourth ventricle, we observe only that the symptoms decrease in the injury of the protuberance; viz. direction of the animal on the side injured, progression slow and as if crawling, uncertainty and difficulty of preserving the equilibrium, falling and half supination on that side; but, moreover, natural position of the eyes.

3. If it be disorganised immediately beneath the protuberance and the fourth ventricle, that is to say, the two bundles of the infundibulum, and a little of the two anterior pyramids (the corpora restiformia always remaining perfectly untouched), we obtain symptoms as before described; incomplete paralysis, with rigidity and extension of the inferior limbs; curious motion of the superior extremities.

4. Lastly, an injury similar to the last, performed on a level with the *calamus scriptorius*, has no influence on the motion of the eyes, although it produces symptoms of the superior and inferior extremities, but without transposition of those observed at the inferior extremities, on the superior and *vice versâ*.

If we duly appreciate the facts above stated, it will be evident that we shall be justified in concluding, that the medulla oblongata is not one composed of two halves only, but that each of the two halves which constitute its body, is itself composed of three columns or bundles, the properties of which are different.

The equilibrium and parallelism of the eyes depend on the state of the middle bundle, or of the infundibulum; when one of these bundles is wounded, the two globes of the eyes are drawn unequally, and in a different direction. When these two bundles are disorganised on the level of the fourth ventricle, the eyes are deranged in a uniform manner. Lastly, when the fourth ventricle is traversed at its most inferior part, or beneath the *calamus scriptorius* (it is the spot where the two bundles of the infundibulum leave this ventricle, to occupy the external lateral parts of the medulla), then, the injury only affecting the anterior pyramids, the eyes do not change their position. This last circumstance shows, that the anterior pyramids have nothing to do with the effects to which the above mentioned experiments have given rise to relative to the eyes. It is, moreover, very difficult to wound these pyramids by their anterior surface; we can only effect it by introducing an instrument curved at its extremity, into the space which separates the atlas from the occiput. Neither the posterior pyramids nor the cerebellum were concerned in the experiments. It was the bundle of the infundibulum, the injury of which produced the phenomena which we have now detailed. It is from this bundle that the sympathetic nerve principally arises. Now, according to Mr. Charles Bell, the eyes are put in the position before described by means of the obliqui, one of which receives the fourth pair.

A FEW OBSERVATIONS ON THE DISSECTING AND PREPARING OF THE BODIES OF ANIMALS.

Though the art of anatomising the bodies of animals is essentially the same as that practised upon the body of man, and though want of space precludes me from treating the subject minutely, I conceive that a few remarks may not be altogether unacceptable to those who feel desirous of pursuing such studies for themselves.

The first thing that I have to observe is, that all dissections of small soft objects, e. g. worms, zoophytes, insects, mollusca, and embryos, where it is desirable to obtain even tolerably accurate results, should be performed *under water*, by which the parts are kept floating and separated from each other, and, consequently, present themselves more distinctly. A very simple contrivance for investigations of this kind, may be prepared in the following manner: a mass of tough wax (not too soft) is to be laid upon one or more porcelain saucers or capsules of different sizes, which are then to be put in a warm place until the wax melts, so as to cover the surface evenly to the depth of one-half or one-third of an inch. If the object to be examined be laid upon this surface, it may be fixed by needles in any position that is wished, and when covered with clear water, developed and dissected by means of suitable instruments. Of them, the best are very delicate forceps, pointed, well made, sharp cutting scissars, and small knives like cataract needles, some round, others with cutting edges, and fixed in slender wooden handles. For separating parts, I have also employed small horn probes, and fine brushes; whilst, for examining them, a good magnifying glass is frequently indispensable. If it is wished to preserve a preparation thus made, wax coloured at pleasure as for the purpose of injections, is to be formed into little tablets about one-fourth of an inch thick; one of these is then to be placed upon the saucer or capsule containing the preparation; the latter may then be transferred to it, arranged suitably upon it, fixed there by means of short needles, and both together then placed in alcohol. Nor must I forget to mention, that the examination of very delicate organisations may frequently be conducted with greater facility and accuracy, if the object be previously allowed to remain some time in spirit, and thereby to become harder and contracted. This applies particularly to the dissection of nervous organs, and to the examination of very small embryos, of mollusca, and worms.

There are various modes of destroying worms, insects, mollusca, &c., for the purpose of dissecting, without injuring their organisation: mollusca and snails, for instance, as Swammerdam has remarked, are to be allowed to die in water, because by that means their body swells, and all the parts become more distinctly visible; they may afterwards be kept in spirit (though not too long) for dissection. Worms, the larger zoophytes, (for the smaller must be examined whilst alive,) caterpillars, &c., and also the smaller amphibia and fishes, are best destroyed by means of spirit. Insects, on the contrary, by being dipped rapidly in boiling water, or in oil of turpentine.

As regards the dissection of larger animals, we may here use with advantage knives of a large size, and instead of forceps, suitable hooks with handles.

In animals of a considerable size, we can generally make artificial skeletons only, after the bones have been sufficiently cleaned by boiling or maceration. In smaller animals, on the contrary, such as birds, amphibia, and fishes, of which last it is very difficult to make good skeletons; the object will be best accomplished by at once making the bones as clean as possible, without injuring the capsular ligaments, soaking the preparation in water that is incessantly changed, and, lastly, bleaching it for some time in the sun.

Lastly, we may mention injections as affording a very essential assistance in zootomical investigations for physiological purposes; in small animals, and in the more minute parts, these must consist of compositions with wax, very fluid and coloured; but above all, of mercury. The latter, however, is not suitable for very soft bodies, e.g. medusæ, &c., in which cases we may employ injections of coloured milk and similar substances.—*Gore's Translation of Carus's Comparative Anatomy.*

DILATATION OF THE PUPIL.

Experiments on living dogs and rabbits, show that the pupil, even when dilated by belladonna, contracts briskly when the external surface of the iris is stimulated by a needle passed through the cornea, whilst, on the contrary, the contraction is less rapid if the needle passed through the iris and irritated its internal surface; nay, a very able ophthalmologist assured me, that when, during an operation of keratonyxis, the iris was perforated accidentally, and without any further mischief, it remained motionless; and, on the contrary, that the pupil invariably contracted when the anterior surface of the iris was irritated, in opening the anterior chamber during the operation of extraction.—*Ibid.*

SKETCHES
OF THE
SURGICAL PROFESSION IN IRELAND.

No. XXII.

DR. JACOB'S INTRODUCTORY LECTURE.

The revolution in the arrangements of our college, which was detailed at some length in a late communication, terminated yesterday in an exhibition, attended by circumstances which demand a specific notice from their peculiarity, and I might add, their importance, at least in this remote part of the empire, where trivial incidents sometimes assume the dignity of events. Divested, however, of the adventitious amplification with which our provinciality naturally invests ordinary occurrences, the occasion was one of intrinsic interest in the records of our scientific movements; one in which our national feelings were deeply embarked, and rendered still more momentous by the shipwreck of these anticipations. The sound of the hammer for more than twelve months, had launched us in an agreeable voyage of hope, while the appointment of several approved pilots at the helm, promised a favourable conclusion to our speculations. In fact, after the toil and expense laid out on the decoration of the college, the addition made to the numerical strength of its functionaries, with various other supplementary provocations to excitement, it was not to be wondered at, that the hour, when matter and mind were to reflect mutual splendour on each other, and our appetite for information on certain topics was to be allayed, should have been awaited with an intensity of anxiety, for which my experience furnishes no parallel. In short, it was to be an era in the history of the establishment; or to borrow a technicality from the periodical craft, (no offence, I hope,) the institution was to commence a "new series," under more propitious auspices. Great changes had certainly been made in its different departments; others, equally considerable, were supposed to have been in contemplation; divided in its councils on questions not only involving its own interest, but even that of our metropolis, to which, "fallen! fallen! from its high estate," the casual alms of science are now an object of some consequence; it was expected, that out of these circumstances some superior spirit would arise, and comprehending the exigences of the crisis, would satisfy public curiosity, by an ample explanation of the past; and while sketching the intentions of futurity, would give an earnest of their wisdom in the execution of the draft. Though not an admirer of the policies adopted, in many instances, by the active agents of the college, nor convinced of their capabilities to give weight to prudent measures, by the authority of literary merit, I confess I permitted the repose of my incredulity to be broken by the popular current, and believed that for once, the obvious indications of the case would force them into the right path of conduct; and that the very pressure of expectation would have extracted from sterility itself, something worthy of the temper of the times.

Willing to be deceived, I resigned myself, like many others, to the pleasing reveries of hope, and in my way to the place of their fulfilment, had the singular merit of sketching in my mind, insensible to the commotions of Grafton Street, and the seductions of shop-windows, the "ideal" of the discourse, and of the individual by whom it should be delivered. He should, I imagined, be at least six feet high, imperial measure, with a genuine Milesian face, the "front of Jove himself," an eye of lightning, a powerful arm, voice more loud than sweet, a rich fancy, strong intellect, sound judgment, genius to conceive, taste to execute, fortitude to deliver what a heart in the "right place" suggested, with his mind plentifully stored with classical, miscellaneous, and medical information; in short, a well-built, talented, honest, fearless Irishman, who had risen to eminence by force of character alone, having a consummate contempt for all trickery and corruption; and with a degree of liberality quite uncommon to persons of my creed in Ireland, I concieved he would have been improved by a slight twang of the "brogue," and by not eating meat on Fridays—the nation, of which I thought he should have been a perfect specimen, being, I fear, in spite of the "new reformation," irrevocably addicted to ichthyophagy on two days of the week. The discourse should, in all respects, correspond with the characters just described; be bold in conception, and fearless in execution; applaud where approbation was due, and condemn, without mercy, where vices provoked reproof; expose defects, reckless of all personal considerations; and propose remedies, regardless of the profits or losses of individuals; convince the wavering, awe the corrupt, and elevate the minds of the young to a just perception of the extent and respectability of the profession in which they were about to embark, by the liberality of its views, and the depth of its scientific intimations. The sounds of approbation with with such a manifesto would have been received, began to swell on my ear; I saw the eyes of the multitude kindle into enthusiasm, as their hearts expanded to the influence of truth; I traced their impressions communicating, as they spread wider and wider from their source, a healthy agitation to the public mind, like the divergent undulations of a lake when disturbed at its centre; while fancy, in another corner of the picture, presented Mr. Colles writhing under the infliction of the orator; Sir Peter Courtenay holding a bottle of ammonia to Mr. Harrison's nose; Porter biting the dust in actual convulsions; Palmer and Auchinleck running down York Street as if the "tip-staff" was at their back; and the rest of the crew hiding "their diminished heads" under the benches, with their heels up, and calling on the mountains to cover them, as if the blast of the last trumpet had thundered on their ears. Lawrence—Armstrong, hurling one of their annual missiles, plumed with wit and pointed with justice, which bear death yearly among the ranks of corruption, involuntarily mingled with my associations; and even our own Carmichael, wielding with his gigantic arm the truncheon of reform, and prostrating its opponents at every blow, started up on the canvass to supply my imaginary desideratum. Absorbed in these perhaps malicious abstractions, I passed through Grafton Street, unconscious, as if it had been another Palmyra, until striking my shoulder against the college, I awoke from my dream—cast an eye on my watch—it was nearly ten o'clock. I looked round, and taking in Mr. Jacob in the distance, the delusion vanished, and I entered in a state of despondent collapse, equal to my late excitement, to work out a seat in the best manner I could.

A long attendance at professional meetings of every description, enables me to say, that I never witnessed any thing of the kind equal to the vast concourse of spectators by which I was now surrounded. Long before the appointed hour, a theatre capable of containing a large assembly originally, was found, though lately enlarged nearly to twice its former dimensions, quite inadequate to the accommodation of the crowds which sought admission. From the top to the bottom of this spacious receptacle was filled even to suffocation; and as I turned up to inspect the congregation of Scotch pebbles, English spar, and Irish diamonds that glittered on all sides, I instinctively recoiled from the contemplation of the moving mass that heaved in the tortures of pressure and perspiration above my head. The contagion of curiosity seemed to have transcended the pale of the medical world, for I observed that the condensation of the multitude had been completed by a liberal influx of the representatives of every other profession and grade of society. The physical sensations excited by such a concentration of humanity, would probably have propagated themselves to the minds of the same number of persons of any country under similar circumstances; but amongst Irishmen, such a provocation naturally elicited more than an ordinary display of their proverbial restlessness. For some time the stimulus to inquietude expended itself in critical anticipations of the person and performance of the expected orator, and in occasional ejaculations of corporeal suffering. These complaints and commentaries sometimes assumed rather a grotesque character from their contrasted combination, and to such questions, answers, and remarks as these I could not be inattentive:—"Is Erinensis here to day?"—"Oh! my leg; to be sure he is."—"Lord have mercy on poor Jacob! Up with the windows."—"We'll have it all in The Lancet. Oh! my country, all I suffer for your sake."—"Do ye think he'll play the monkey to-day as well as at his first appearance in Park Street? D—n all lectures, past, present, and to come. What brought me here?"—"Amen. Tom, will you send an os frontis whizzing right through the glazier, and let in a few zephyrs from the Green? Here he comes, the great little man in the spectacles."—"No, faith, but his master; and now for a regular round to knock the dust out of your 'kids.'" The dialogue ended, the door opened, and the hero of the Richmond entered. A momentary pause of silent respect, like the calm preceding a storm, ensued, in which the energies of the spectators seemed to have been collecting only to burst on him with increased violence in the tornado of applause, amidst which he moved to his seat. However our studious visiters might look upon such tumultuous eruptions of feeling, I could scarcely regret that they were so ardently and loudly lavished on one by whom they were so well deserved. Fortunately for the preservation of the temper of the audience, their growing impatience found an outlet in many such boisterous explosions, as some favourite examiner, or member, took his seat below in the space allotted for them apart from the students. In a moment, however, of partial repose, the object for whom all eyes had been so long and anxiously looking out, rushed in from a side door, followed by a confusion of sounds, in which the most experienced ear in popular vociferation might be at some loss to determine whether ridicule or applause predominated. Accidentally recognising the table, in the rapidity of his flight, he as precipitately drew himself up to the highest pitch of his altitude, and, pausing for a moment, stared through the spectacles at the living mass that towered above him, as if confounded by its magnitude and the deafening peals by which he was assailed. Having assured himself that he had taken a right position, and waiting with the occiput almost in apposition with the dorsal vertebræ, until the alarming tumult had subsided, he squared his elbows, and, turning to Mr. Cusack, addressed him as president, by stating, that he stood there, by order of the College, to make some remarks preliminary to the course of lectures, and, in an under-tone of submissive humility, assured the honourable members, that they were not there to receive instruction, but to preside over its administration to others. By what agency Mr. Jacob performed the feat of courtesy displayed in his obeisance, I have been at a loss to determine, and equally so, why Mr. Cusack should have worn his beaver on, unless Sir Peter Courtenay had assisted the former by some astute contrivance in the floor, and that Sir William Bitham, "Ulster King at Arms," has made out some family connexion between the latter and the noble house of De Courcy. Its deep shadow, however, I thought improved rather than injured the expressive inanity of the president's visage, which seemed as intensely vacant as if he had been meditating a trip to Gretna with the goddess of the Dunciad, or ruminating on the gloomy prospects of Park Street, brought to his memory so forcibly by the presence of his quondam associate, Mr. Jacob, who, having thus laid the first-fruit offering of his gratitude with all due servility at the feet of his electors, proceeded to address the audience indiscriminately.

The subjects of Mr. Jacob's lecture were extremely heterogeneous, their diversity disdaining the dull toil of judicious selection, and snapping the thread of the discourse by perpetual transition. I must be, therefore, as abrupt as my original, in noticing his production, which might be read from the middle, the end, or any other given point, without injury to its arrangement or intelligibility. The late alterations in the College, and the local advantages of the Irish school, were themes of too prominent a character to have escaped the attention of a less accurate observer than Mr. Jacob. Occupying their proper place, and represented in suitable colours, they might have given force to the effect which he intended to produce; but when Mr. Jacob determined on asserting that the College was at length a perfect institution, and that the school of Dublin was now the first in the world, I fear he erred materially in his estimate of the powers necessary for the discussion of such important subjects. Dublin is certainly not the best school in the world, but it is quite beyond Mr. Jacob's qualifications to do justice to its merits. The fact which he selected to make good this point, that there are now in our city accredited agents from London and Edinburgh for the purpose of pickling and casking dead bodies, was certainly a good one, but in his hands liable to many objections. The fertility of Bully's Acre, which has shed such a halo of glory around the school of Dublin, is purely accidental, and it consequently required a degree of logical tact in the management of the argument, by no means possessed by Mr. Jacob, to found a claim to superiority on a mere casualty; merit, in ethical reasoning, being always associated with moral exertion. I grant, of course, the vast importance of the silent instruction of the grave, and that the dead professors of Bully's Acre are infinitely more eloquent than many of our living ones; but did Mr. Jacob imagine that he was capable of eulogising the illustrious defunct that slumber in their "narrow beds" around the monument of Brian Boirhome? I have myself got as far as the twenty-second book of an epic poem on the Golgotha of the Hospital fields, with Peter Geraghty, the prince of resurrection, for its hero; but after so many hours expended on the celebration of this theme, and with a thorough knowledge of its magnitude, I should, in a concerted discourse, hesitate to venture on its praise, or to make it the basis of a panegyric on the school of Dublin. The reasons adduced by Mr. Jacob for attempting a defence of our school, were equally unfortunate, and as badly handled; these reasons were, that he was an Irishman, addressing an Irish class, and that a Doctor Somebody, in his enumeration of various cities celebrated for the facilities of professional education which they afforded, omitted all mention of the capital of the West. Now, in the first place, I deny that Mr. Jacob is, in any one essential quality, an Irishman, except his being born in the Queen's County; and if he have any doubts on the matter, I beg of him to read my description of one; then look into his dressing glass, and if he be not convinced of his mistake, I would recommend him to consult his tailor without a moment's delay. Were he really an Irishman, the Dr. Somebody, who had the temerity to insult by his silence the school of Dublin, would be, instead of being as I suppose he is at present, committing legitimate murder among his fellow men, as dead and rotten as any patient he ever poisoned in his life. With respect to the appointment of additional professors, proving the perfection of the College, I do fear that he furnished, on this occasion, the most conclusive evidence of the fallacy of the allegation in his own person and performance. Two sheeps' heads are most unquestionably better than one, the axiom being as true in metaphysics as in the manufacture of broth; but that the concentrated essence of all the heads that were ever exposed for sale in Ballinasloe, would produce any thing like the flavour and excellence of one bowl of turtle soup, any more than that all the inhabitants of Timbuctoo, if made into one man, would be equal to one white, is what I must dispute. That Mr. Macnamara is an invaluable auxiliary in point of longitude is undeniable; of Mr. Harrison's agility no one doubts, having stood the test of experiment; and that Mr. Jacob is willing to exercise whatever faculties he may possess, I do not intend to dispute; yet I should pause ere I asserted in his place, that their united strength, physical and mental, was a proof that the College had at length been perfected. Besides, the assertion was indirectly a bitter sarcasm on Mr. Jacob and his own party, who, to my certain knowledge, have been saying, for many years, that the College required no improvement; indeed I never recollect an introductory lecture in which its infallibility was not maintained, but like all other infallible bodies, it has changed with the times.

The question of the abolition of apprenticeships, which has been for so long a time a bone of contention among the profession in Dublin, was a topic on which some explanation was required from the representative of the College on the present occasion. So much, however, has been said on this subject, the system of apprenticeship has been so often demonstrated to be one of the imperfections of our perfect College, that I should be tempted to leave it to its fate, but for the novel and ingenious defence made by Mr. Jacob in its support. His arguments will speak for themselves, which are in substance, as well as I can recollect, as follows:—"As masters cannot attend to dressing and minor operations, these duties necessarily devolve on their apprentices; though the complaints of the negligence of masters are sometimes well founded, incalculable advantages are derived to pupils, from the opportunities which they afford for private instruction; if you look to the men who have succeeded in their studies and in life, and trace the causes of their success, you will invariably find these fortunate individuals have served apprenticeships; and, lastly, that an apprenticeship made the student go through a more systematic course of education." If bleeding and bandaging, cupping and cauterizing, were actually to cease with the abolition of apprenticeships, I would reflect seriously before I deprived the afflicted of the assistance of dressers by the adoption of such a measure; but then when one looks to other countries, where these duties are performed without a single indenture, there surely can be no apprehension that ulcers would run wild in Ireland, even though indentures were abolished. The balance struck between the neglect and attention of masters to their pupils, may be a nice point to decide, particularly where such a considerable quantity of the heaviest of all metals is placed in one of the scales; and as to the professional prosperity of apprentices depending on scientific instruction, or the ordinary influence of mere interest, as it is called, Mr. Harrison, I presume, and many others, could decide the point for ever. On the supposition that apprenticeship is the most systematic course of education, it would be unnecessary to dogmatise, there being so many living examples of the system at present in Dublin. Mr. Jacob's arguments and facts were, however, far exceeded by his illustrations, of which, I think, the following is a fair specimen:—"The system of professional education (said he) may be considered as a race course, at the end of which a stone wall of fearful dimensions is erected; the course is intersected with hedges and ditches; many enter on it with enthusiasm, lashing and dashing at every obstacle, but before they go far, find themselves merged in a drain; others wander off the course, never to return: but view the apprentice, he proceeds with an uniform speed and undaunted courage; he flies over every impediment, or should these be insurmountable, he goes round to the gap; nothing diverts him from the course, until at length he reaches the wall, and clears it in good wind, never failing to find the king's plate on the other side." Shouts of laughter of course followed the delivery of this parable, culled from the "Racing Kalender;" and when the noise a little subsided, the Solomon of the "stand-house" thus explained his meaning: "The wall is the examination, and the public are looking from behind it, betting on the winner, and waiting to reward the victorious." The peals of laughter were now renewed with redoubled violence; waves of mirthful fat were seen undulating along Mr. Wilmot's ribs; Mr. Harrison chuckled knowingly at the sad condition of his sporting colleague; and Mr. Colles, whose lips seldom divaricate beyond the legitimate range of a sneer, seemed in some danger of dislocating his jaw from excessive agitation. Had Mr. Crampton cracked off this parallel in the theatre to the sound of a hunting whip, no one would have been surprised, it being quite in character with the nimrod of the county Dublin; but for Mr. Jacob to attempt it, who would as soon bestride a Bengal tiger or a crocodile, as any charger of common spirit, and whom the veriest heart-broken hack on the "rock road" would brush off his back like a gad-fly on a summer's day, was really unaccountable. The novelty of the comparison promises him, at least, the immortality of a cant, into which it has already passed, the wags of the dissecting room asking each other, "Who takes Jacob's stone wall next?" This part of the discourse being obviously intended for Mr. Carmichael, I amused myself in contemplating the visual encounter of the parties, and nothing could be more melancholy than the plight of poor Mr. Jacob, as he cast a side glance at his opponent, whose scornful looks of contempt, mingled with pity and the might of conscious rectitude, seemed to have reduced the speaker to one half his dimensions. He next adverted to the disinterestedness of the College in the proposed admission of members without serving an apprenticeship, and making some distant allusions to a new charter, suddenly restrained himself, as if he had recollected Horace's address to his muse:—

> "Quo musa tendis? desine pervicax,
> Referre sermones deorum," &c.

or feeling, perhaps, that he had in this respect exceeded the letter of his instructions, left us to conjecture his mysterious misgivings on an obviously uncongenial theme.

About three quarters of an hour were occupied in discussing these important matters; and then proceeding in his peroration, made some remarks on the course of lectures to be delivered, as he observed, by order of the College, on comparative anatomy; descanted on the utility of this branch of science, the necessity of a knowledge of Greek for its attainment; and, as an exemplification of his own proficiency in that language, How, said the little linguist, (who, I suppose, has performed the Herculean task of mastering the gospel of St. John, and a few dialogues of Lucian,) could Cuvier have fallen into the error of including the horse in the genus Pachydermata? for his skin is remarkable for its *smoothness*, not for its *roughness*; as if the qualifying epithet of the generic compound had any thing to do with the defining of smooth or rough surfaces, being interpreted by Schrevelius, I believe, as expressive of thickness. But notwithstanding this profound display of Greek, horse-skin, and comparative anatomy, he assured his junior audience that they could not spend twelve short hours more profitably than in learning this science; a space of time which might be looked on as rather short for attaining a knowledge of so extensive a subject, if the abilities of the teacher were not taken into consideration. I regret I cannot speak even in terms of common respect of this performance or its author, for the ordinary language of critical denunciation would be misapplied in noticing either. Whatever he attempted to praise, was quite beyond the reach of his approbation; his censure merely displayed the strength of its object, and the helpless weakness of the assailant; his criticism, turning back on himself, demonstrated his ignorance; in short, whatever faults could be committed in the conception, execution, and delivery of one discourse, were concentrated in this production, which has excited the indignant contempt of the surgical profession in Dublin.

ERINENSIS.

Dublin, Oct. 30, 1827.

ST. THOMAS'S HOSPITAL.

SERIES OF CASES OF MALIGNANT DISEASE, OCCURRING IN VARIOUS PARTS OF THE BODY.

WE use the term malignant here, in its ordinary acceptation; that is, as denoting specific and intractable disease of structure. Malignant diseases in this sense are generally considered as belonging to one of two kinds—cancer, or fungus hæmatodes; and although it must be admitted that these diseases are distinct in their nature, and often exist uncombined, yet in many instances we find them co-existing in the same organ, so that it is frequently impossible to say with certainty, *a priori*, this is fungous disease, or that is cancerous disease.—Again, a morbid alteration of structure takes place, equally intractable, but differing widely in all its other characters from cancer or hæmatodes; but whether this difference is attributable to the peculiarity of texture affected, the disease being identically the same, or whether there are so many distinct and separate diseases, is at present unknown. It is from having remarked for a long period the vague notions which in general prevail, and the difficulties with which students are beset in the consideration of these cases, that we have said thus much prefatory to the narration of several cases which are at preaent, within the Hospital.

CASE 1. *Disease of the face.*—G. D. 50 years of age, admitted into George's Ward, under the care of Mr. Travers.—This patient is disfigured in a most horrible degree by disease of the nose and side of the face. The right ala nisi is divided by ulceration to a considerable extent longitudinally, into two parts, and the portions are separated to the breadth of two fingers. The ulcerated parts are foul and sloughy in appearance, being entirely devoid of granulations: at the under part of the ala nasi is a sore of the same character. From above the ulcerated cleft in the ala nasi is a tumour of the size of a fist, passing upwards as far as the inner canthus of the eye, and extending outwards upon the cheek: the swelling encroaches so far upon the orbit that the eye is closed, and the patient has the power of vision only in a very limited degree. The tumour is exceedingly hard to the touch; the skin is livid, and at the inner angle of the eye there is an ulcerated spot nearly of the size of half a crown: it is superficial, and covered with a yellow tenacious slough. A thin offensive discharge issues from the whole.

The history which the patient gives is, that the disease has existed upwards of three months, and that it commenced with a small ulcerated spot on the ala nasi, which gradually extended: for two months previously there had been slight discharge from the nostril; and we conceive it to be worthy of remark, that about this time he experienced great mental anxiety The disease throughout has been attended with occasional lancinating pain; however, the patient's general health (which has always been good) has not apparently suffered; there is slight glandular enlargement beneath the lower jaw on each side.

Mr. Travers designates the disease as *carcinomatous*, and as such, incurable; he directed a solution of the nitrate of silver to be applied to the ulcers, and eight drops of the arsenical solution to be taken three times a-day.

An important question suggests itself in the consideration of this disease, namely, with respect to its origin. Did the disease commence in the lining membrane of the nose? Or, did it originate in the skin or follicles, so numerously abundant at this part?

Case 2. *Disease of the hand.*—The patient, a woman 70 years of age, of spare habit, and dark sallow complexion, (or it might almost be said to be of a leaden hue,) admitted into Mary's Ward, under the care of Mr. Travers. This woman presents most singular and extensive disease of the right hand. The hand is bent and hangs down, so that the fingers, which are greatly swollen, nearly approximate to the wrist: the patient is incapable of moving the fingers. The back of the hand, to within a short distance of the wrist-joint, is in a state of ulceration, being covered with hard irregular granulations: the disease extends some way down the back part of, also between the fingers and into the palm of, the hand. The fore-finger is entirely gone, and the remainder are loose at their metacarpal junction. There is a thin and very offensive discharge from the whole surface; the absorbent vessels may be felt, thickened, throughout the fore-arm, and to a considerable extent in the upper arm. At a short distance above the elbow-joint, there is an enlarged absorbent gland, which is very painful on pressure: the axillary glands are slightly enlarged, but not indurated.

The patient gives but a very imperfect account of the origin and progress of the disease; all that we can collect is, that for many years she had a tumour on the outer side of the fore-finger: that at length it enlarged and ultimately attained the size of a walnut, when it was removed by a respectable country surgeon, Mr. Harris, of Croydon: the part did not heal after the operation, and from this point the present disease commenced and extended. About the middle of the fore-arm, on the inner side, is a moveable tubercle, beneath the skin, of about the size of a French bean; it is hard, but tender to the touch. The patient refers to this small tumour, and says that the one removed from the fore-finger was of a similar kind.

Mr. Travers considers this also to be a case of *carcinomatous* disease, and at first proposed the removal of the limb, to which the patient assented; but subsequently, Mr. T. considered that the disease had extended too far to warrant an operation. Although an old woman, and of unhealthy appearance, she does not appear to be suffering from any visceral disease.

Case 3. *Disease of the breast, occurring after the removal of a malignant tumour.*—The patient, a healthy-looking woman, 46 years of age, had the right breast amputated in the month of May last, by Mr. Travers, in this Hospital: at the same time several enlarged glands were removed from the axilla. She remained in the Hospital until the middle of August, when she left, but the wound at that time had not quite healed, and shortly afterwards a fungous growth issued from the part, which continued to increase to the time of her second admission, which was a few weeks ago.

At the period when this report is written, (Nov. 9th,) we find an ulcerated surface as large as the palm of the hand upon the chest, immediately beneath the anterior fold of the axilla. In the central part of the disease is a small deep opening, sloughing in appearance; whilst from this are everted flat and very broad edges, which being turned back, and lying upon the chest, constitute in fact the great mass of disease. An ichorous discharge of an offensive nature issues from the parts; there is no enlargement in the axilla.

The breast which was removed was found to partake of two kinds of disease,—one portion having the characteristics of true cancer, and the other of medullary or fungoid disease. Mr. Travers remarked, that the disease had recurred at the cicatrix, a circumstance which he said was fully in accordance with his previous observations, of the return of such diseases after operations: he had invariably seen them recommence at the cicatrix, and not in the axilla.

The poor woman continues at present in the Hospital; it is almost unnecessary to say, that palliative treatment only has been resorted to.

Case 4. *Disease of the penis.*—This is a case of very long standing: the patient, a chimney sweep, 37 years of age, having been in the Hospital upwards of eighteen months, under the care of Mr. Green. He was admitted with ulceration of a specific kind, at the junction of the scrotum with the penis: it had existed upwards of two years, and made its first appearance as a small wart. There was a superficial sore at the under part of the root of the penis, with hard, irregular, and thickened edges: this disease has gone on gradually pervading the penis, until at length all that remains is the glans; stuck, as it were, close upon the pubes, in the midst of semi-cartilaginous, irregular portions of skin. The glands in the groin are enlarged generally, on each side, and tender upon pressure.

There are two points in the consideration of this case, which appear to us, worthy of particular observation. First, the peculiar origin of the disease, as regards situation; and, secondly, its progress. Chimney sweepers' cancer, it is said by Pott, *invariably* commences at the lower part of the scrotum: the disease, in the present case, we have already said, began at the under part of the root of the penis. The *progress* of the disease too is very remarkable; its gradual extention along the penis, instead of pervading the scrotum.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

INTERESTING CASE OF SPINA BIFIDA, TREATED ACCORDING TO THE PLAN OF SIR A. COOPER, BY PUNCTURE.

A STRONG child, ten days old, was brought to the Hospital, some time ago, with a large swelling, measuring nearly 14 inches in circumference, situated in the central portion of the sacrum, which was tense, elastic, and semi-transparent, and evidently contained a large quantity of fluid. The integuments forming the parietes of this swelling were remarkably thin, and, at some places, of a deep red colour, and appeared as if about to ulcerate. The central portion of the sacrum was evidently deficient, and the tumour could be traced to extend nearly to the situation of the cauda equina.

From this disease, which was congenital, although at first scarcely of one-third the size which it had since attained, the child seemed to suffer little inconvenience, and although the tumour was of large size, and must have compressed the termination of the spinal marrow, nothing like paralysis of the lower extremities had ever been produced, nor yet had it, on any occasion, given rise to convulsions, which are so frequently the result of this disease. As the integuments of the swelling were inflamed, and as there appeared to be a great likelihood of their ulcerating, and of the contents being consequently discharged by a large opening, which would have probably been speedily followed by death, Mr. Wardrop deemed it advisable to puncture the sac with a small needle, in order to allow of the gradual discharge of the fluid. This operation, which was repeated five times during the succeeding ten days, was attended with no symptom of the least consequence, except, perhaps, a slight degree of febrile excitement, which soon disappeared. On the 11th day, as the fluid was found to be rapidly accumulating, and as no bad consequences had resulted from the previous operations, it was thought proper to introduce a very small trocar, when nearly five ounces of a very dark-coloured and thick fluid were evacuated. It was now found that the parietes of the tumour had undergone a very considerable change, and that they had become very much thickened and corrugated. On the 14th day, the appearances of the tumour were very much improved, its size was evidently much less, and its parietes were gradually becoming of greater thickness. The fluid, which was of a very fœtid nature, and intermixed with numerous small flocculi of lymph, was again evacuated. The health of the child continued unimpaired.

During the succeeding month, the swelling was occasionally, by means of the small trocar, punctured, and its contents, which had now degenerated into a thin serous fluid, drawn off. At the termination of this period, the tumour was reduced to less than one-third of its original size, and what remained attained a very solid consistence. The child seemed to be, otherwise, in perfect health, and had none of those symptoms which usually mark the progress of the disease. A few days, however, subsequently to this period, the little patient was suddenly, and apparently without any cause, seized with convulsions, which speedily terminated his existence.

On dissection, the integuments of the tumour, which was divided into three cavities, were found to have become remarkably thickened and indurated, and, indeed, entirely to have lost the appearance of the cutaneous textures. The cavities were in immediate connexion with the termination of the spinal marrow, but, from the alterations in structure, it was impossible to discover whether or not the meninges of the chord constituted a covering to the tumour. The spinal marrow itself seemed to be sound, and no other disease existed in the body.

The history of this case, the great benefit of the treatment employed in arresting the fatal termination of the disease, and in producing nearly an obliteration of the cavity of the tumour, argue strongly in favour of the treatment by puncture, employed and recommended by Sir Astley Cooper, even although it ultimately proved unavailing.

SECOND CASE OF SPINA BIFIDA, IN A LESS ADVANCED STAGE.

A female child, three months old, was brought to the hospital during the last week, with a considerable sized swelling, of a semi-transparent nature, and containing evidently a fluid resembling high-coloured urine, which was situated in the upper portion of the sacrum, being nearly in the position of the last described tumour. It was covered by a thick, though very dense and strong, membrane. A portion of the sacrum was evidently absorbed, but, from the tense state of the tumour, it was impossible to trace its extent. On placing the child in the recumbent position, the swelling was very considerably diminished in size, while, when held in a vertical position, the tumour became remarkably distended, and thus incontrovertibly proving the connexion of the external disease with the spinal canal. From this disease, which was congenital, although of less magnitude than at present, the child had not suffered in any way whatever; and, indeed, in other respects, seemed to be in perfect health. Nor, when the tumour was compressed, was any symptom produced, which could point out its connexion with the nervous system.

In this case, which, at the present moment seems to be stationary, and is not attended with any symptom demanding active treatment, it has not been deemed expedient to puncture, or to compress the tumour; but should it increase in size, we believe the same plan which had so nearly answered in the last case, will be pursued in this.

CASE ILLUSTRATIVE OF SOME OF THE BAD EFFECTS WHICH OCCASIONALLY FOLLOW THE TREATMENT OF ERYSIPLEAS BY INCISION.

At the present moment, when the treatment of erysipelas, owing to the promulgation of Mr. Lawrence's opinions, in his highly practical and able paper, which was lately read to the Medico-Chirurgical Society, is engrossing very general attention, any cases in point, whether for or against the employment of incision, will be perused with peculiar attention.

We narrate the following case, to show some of those bad consequences which occasionally are produced, and which even its most ardent admirers do not pretend to say it is entirely free from, but not with the slightest view of throwing any discredit on a plan of treatment, the good effects of which, we have had numerous opportunities of observing, in preventing or speedily arresting the progress of sloughing and extensive suppuration, in the more severe forms of the phlegmonoid erysipelas.

A frail woman, 68 years of age, and paralytic of the left side of the body, came to the hospital, complaining of a great want of sensibility in the right forearm and hand, which frequently became cold and of a livid colour. She observed, that this numbness did not extend over the whole hand or fingers, but was confined to the radial half of the forearm, and to the thumb, fore, and middle fingers, while the ring and little fingers, and ulnar half of the arm, possessed their natural degree of sensibility. She had complete command over the motions of the shoulder and elbow joints, and indeed had no symptoms of deficient sensibility in the right side of the body, but those already mentioned.

In the anterior part of the forearm, and following the course of the supinator radii longus muscle, there was a cicatrix nearly five inches in length, which was the result of a very deep incision, which had been practised in June last, at a time when her arm was greatly swollen from erysipelatous inflammation. This had exerted, according to her account, a very salutary effect in arresting the progress of the alarming disease, but it had been followed by that loss of sensibility, of which she now complained. The paralysis of the left half of the body was of eight years standing; in other respects she was in tolerable health. In this case it appears probable, that the incision, although attended with instantaneous relief to the erysipelatous inflammation, had yet produced, from the division of the external cutaneous nerves, that loss of sensibility, which was perhaps a worse result than even if the disease had proceeded to extensive suppuration.

CASE OF WOUND OF THE CORNEA, FOLLOWED BY PROLAPSUS OF THE IRIS, AND OPACITY OF THE LENS.

J. H. ætat. 40. In the outer and inferior portion of the cornea, near its junction with the sclerotic coat, there is a lacerated and very extensive semi-circular wound, through which a large portion of the iris is projecting. This obtruding portion is of a brownish colour, and differs widely in appearance from that part of this membrane, which is in its natural position. On the surface of the iris, and within the anterior chamber, there is deposited a large flake of coagulated lymph. The pupil is very irregular, and much pulled downwards towards the wound. There is an evident opacity of the lens, though still in an incipient state. The conjunctiva is a little vascular, though by no means in a very inflamed condition. He complains of a good deal of pain, and more particularly of a distressing sensation, as if some foreign body were lodged on the surface of the eye-ball, as for instance, particles of sand. His vision is very much impaired—he is unable to distinguish any object minutely. He states, that three weeks ago, he received a blow from a splinter of wood, which pierced the cornea. This was rapidly followed by a severe inflammation of the eye-ball, and an intense degree of pain, for which he was bled, leeched, and took purgative medicine. This reduced the acute degree of inflammation, but a chronic state has continued since.

This case is remarkable, in so far as it shows the severe consequences which may ensue from a slight blow on the delicate organ of vision, and the liability of the iris to protrude through a wound situated in the lower portion of the cornea. The prolapsus iridis, acting as a foreign body, produced inflammation of all the tunics of the eye, and gave rise to the deposition of lymph, which was of so remarkable extent, and likewise to the opacity of the lens, an occurrence which is very apt to follow penetrating wounds of the cornea, even where the lens itself is uninjured.

WESTMINSTER MEDICAL SOCIETY,

November 17, 1827.

After the Minutes of the preceding meeting had been read and confirmed,

Dr. Burder called the attention of the Society to the laxity of the discussions, which had prevailed to a great degree during the previous meeting of the present session, and recommended to the members to confine themselves more strictly to the subject at issue.

Mr. Skeene then rose, in the absence of Dr. Barry, who was unavoidably prevented from appearing, to enter on the subject of aneurism in general, which he had almost involuntarily undertaken, at the request of Dr. Barry, being fully aware of his own inability to supply that gentleman's place. He would not discuss the opinions of all who had written on the subject, but would, at once, give what he conceived to be the definition of the disease. Aneurism he considered to be, the communication of an artery with a pouch filled with blood. This might be either simple or diffuse. These two species had many varieties, which arose principally from situation, as femoral, inguinal, &c. Simple aneurism he considered to be merely a dilatation of all the coats of the artery, and where the tumour was circumscribed ; whereas diffuse aneurism consisted in a rupture of the coats of the pouch, and the consequent indefinite extension of the disease. Diffuse aneurism was very often the result of simple aneurism. Another variety of diffuse aneurism, was the abrupt communication, by artificial means, of an artery with a vein, constituting varicose aneurism. Having now considered the definition, Mr. Skeene proceeded systematically to the *causes* of aneurism. The first which he would notice, was pressure of an artery beyond the point where it afterwards became enlarged ; of this he would cite as an example,—aneurism of the popliteal artery in coachmen, jockeys, and others, whose limbs were kept flexed, thus allowing the edge of the boot to compress the artery below, while, at the same time, the vessel higher up, from the relaxation of its surrounding muscles, became deprived of support. The aorta also frequently was diseased, from the pressure exerted by the diaphragm, as the vessel passes from the thoracic to the abdominal chambers. The next cause which he considered, was the increased action of the heart, which frequently produces aneurism of the aorta, or even of the arteria innominata, and also of the two arteries coming off from the left side of the aorta. This might be called a constitutional cause. Then another cause of aneurism, was violence applied to an artery, of this he would mention a case. A beautiful girl, (and the disease was to be ascribed to the effects of her beauty,) while at work in the hay-field, was rudely seized by her master, who grasped her arm with great violence, and thus contused it ; an aneurism, which speedily developed itself, was the consequence. An artery also might be wounded, and aneurism thus produced. Having now considered the causes, he would *come down* to the effects of the disease. These were, first, atrophy of all the surounding parts, and this occurred from the compression which the aneurismal tumour exerted ; 2dly. The loss of sensation and *volition* ; 3dly. The deposit of coagula, and the closure of the artery ; and, 4thly, The ulceration of the integuments of the tumour, hæmorrhage, and death. Having now considered the definition, causes, and effects of aneurism, he would proceed to enter on the treatment of it. Mr. Skeene then went over the advantages and disadvantages of the treatment by compression, by bleeding, and the antiphlogistic regimen, and by the ligature of the artery on either side of the tumour. Mr. Skeene had a high opinion of the treatment of Valsalva in cases of simple aneurism, which were more likely to be benefited by it than instances of diffuse aneurism ; and for the purposes of compression, Mr. Skeene exhibited a highly ingenious and simple instrument, an invention of his own ; and in apologising to the

Society for the length of time he had occupied its attention, he alluded to the statement of a gentleman who had formerly been an apothecary, and was now a physician, (Dr. A. T. Thomson,) who had observed, on the previous evening, "that he had come there for the purpose of hearing something concerning the causes and nature of aneurism," which, by the way, he (Mr. Skeene) thought he should have known before he got his M.D.'s degree. He was aware how imperfectly he had treated the subject, which he had promised to Dr. Barry almost involuntarily to bring forward.

Mr. Hunt confessed that there was something novel to him in the opinions of Mr. Skene concerning aneurism; he was unable to conceive how a loss of *volition* could be considered one of the effects of that disease. There was one statement in reference to a distinguished gentleman (Dr. Thomson), which he was confident Mr. Skeene did not intend to make. He thought that all invidious distinctions of the kind were quite out of place in that Society.

Mr. Skeene explained, that the statement which he had made, was one called forth in self defence, as an apology for the length of time he had occupied the attention of the Society. He had no wish to give any offence to the gentleman alluded to, whose merits, as well as his works, were well known to every one.

Mr. Lambert had expected to hear from Mr. Skeene a definition of aneurism which would have satisfactorily pointed out the distinction between true aneurism and false aneurism, a part of this subject which seemed to be involved in considerable obscurity, and on which the opinions of the profession were by no means settled. Scarpa had advanced the doctrine, that aneurism, truly so called, could not exist without a rupture of the coats of the artery, although he admitted the existence of dilatation of an artery, so as to form a tumour, and that aneurism was frequently engrafted on that state. He had been repeatedly assailed about a case of carotid aneurism, where he had tied the artery beyond the tumour, and told, that it was not a case of aneurism, but that it was merely a dilatation of the vessel, an instance of what is called in ordinary language, true aneurism. It had been remarked, that this state might have existed for many years, without producing any danger to the life of the patient. He would be glad to know how they were to distinguish this state, and how they were to know that it would not proceed to the formation of false aneurism, which Scarpa had observed to be a common occurrence. He believed that almost every case of aneurism in the *large* vessels commenced in an universal yielding of their coats, from disease, and that subsequently, the diseased coats becoming ruptured, blood was effused externally to the vessel, and then, what is called *false* aneurism was produced. He therefore considered what was termed aneurism by dilatation, to be merely a condition of the large vessels, precursory to a rupture; and probably the dilatation was greater in the large vessels, owing to their coats being more elastic than those of the smaller vessels, in which dilatation of any magnitude was never found. Mr. Skeene had made an observation, which he believed the experience of all the practical men in the room could not agree with, viz. that the treatment by bleeding would be more effectual in cases of simple, than diffuse aneurism; in his opinion, practical experience would be found to support entirely the opposite conclusion.

Dr. Johnson observed, that Mr. Lambert was quite correct in his enunciation of Scarpa's doctrines, which he believed were now admitted by all pathologists to be erroneous. Breschet, than whom a more enlightened pathologist did not exist in Europe, had proved by a great many dissections, that although the appearance of an aneurismal pouch, formed merely by the dilatation of the coats of an artery, was an occurrence comparatively rare, yet that it existed sufficiently often to prove the impropriety of Scarpa's views. The heart, which is the very centre of the circulation, when affected with aneurism, was seldom found to be ruptured, but, on the contrary, merely dilated; instances of false aneurism of the heart had, however, occurred, and he was happy to show a very fine specimen of the disease. (The Doctor here handed round a preparation, the peculiarities of which, from the untidy and unscientific manner in which it was put up, we were totally unable to distinguish.) Mr. Lambert, he believed, alluded to the statement he had made concerning his case of carotid aneurism, and certainly, from the description of the tumour, and from the drawing of it which he had seen, he firmly believed it to have been one of dilatation of the carotid artery. He did not, however, by any means wish to infer, that the operation was useless, or ought not to have been performed; on the contrary, he entirely agreed in the propriety of that operation, and thought that Mr. Lambert was perfectly justified in adopting it.

Mr. Lambert thanked Dr. Johnson for the handsome and candid manner in which he had stated his opinions concerning his case, and confirmed the propriety of the operation which had been performed.

Mr. Mayo observed, that he had, in the museum of Windmill-street, a very fine specimen of true aneurism, where the sac, which was sufficiently large to hold a filbert, was formed by the dilatation of all the coats of the vessel. In dissecting a lioness lately, he had met with several aneurisms of the same kind. Mr. Mayo again alluded to the case of aneurism of the popliteal artery, which had occurred in St. George's Hospital, where the patient had died of secondary hæmorrhage, and directed the attention of the Society to the consideration of the propriety of amputation in similar instances.

A young but experienced member of the Society, Dr. Duffin, then related a great many interesting cases of aneurism, which had come under his own notice. He had, when in Edinburgh, been called to a child, who was almost in articulo mortis from hæmorrhage from the mouth, as may be readily believed; he had tried a variety of treatment without effect, and had even tied the carotid artery. The patient, however, died, and on dissection there was found an aneurismal tumour extending from the posterior maxillary foramen to the symphysis menti, the coagulated blood being contained in a sac formed by the periosteum of each side of the inferior maxillary bone. This singular case was, he believed, the only one of the kind on record, and the members would find an accurate account of it in the last Number of the Edinburgh Medical and Surgical Journal for 1825. He had once opened a body where an aneurism had produced absorption of the vertebræ, and he found that the blood was not separated from the cancelli of the bone by any cyst, but was in immediate contact with the osseous structure. When an aneurism compressed a bone, it did not produce absorption of it, till the cyst of the aneurismal tumour and the periosteum had disappeared, and then it seemed almost to wash away the bone. When in Florence, he had attended a patient for enlargement of the heart, who had previously been under the care of the celebrated Laennec. By his orders she had worn a bandage for compressing the thorax, which she made a present of to him, and which he exhibited to the Society.

It was then announced from the chair, that Mr. Andrews would read a paper at the next Meeting on the subject of tetanus, and the Society adjourned.

LONDON MEDICAL SOCIETY.

Monday, November 19.

Dr. Haslam, President, in the Chair.

Mr. Callaway moved a vote of thanks to Dr. Haslam for his valuable and interesting series of Lectures on the Intellectual Composition of Man; the motion having been seconded by Mr. Drysdale, was unanimously adopted amidst strong expressions of satisfaction on the part of the Society. Dr. Haslam briefly returned thanks.

The case of parturition, related by Dr. Blick at the former meeting of the Society, was again brought forward, and formed a theme for animated discussion during the whole of the evening. As we are aware that the particular method of treatment adopted by Dr. Blick in the case alluded to has excited general interest, we will here recapitulate the leading facts; by so doing, also, we shall enable our readers to form a more correct and striking estimate of the arguments adopted this evening on either side.

Dr. Blick was called to attend a woman in labour, who (if we recollect rightly) had borne several children previously. It was what is obstetrically termed a footling presentation. The labour went on properly and naturally, until the body of the child was expelled, and the head only remained in the vagina; at this period, the womb ceased to contract, and remained inactive for a considerable time. It was in this state of affairs, that Dr. Blick, anxious for the life of the child, (which had exhibited some precursory symptoms of dissolution, by convulsive jerkings,) determined upon inflating the lungs. With this view, he passed a silver female catheter into the child's mouth; and having attached the nozzle of a bellows to the catheter, readily succeeded in effecting the desired object. In the course of a few minutes, the respiration was fully established, and, in fact, the child was heard to cry; Dr. B. now applied the forceps, and delivered the woman without further difficulty.

The principal points of discussion in this case, on the last evening, were—the practicability of applying the forceps under the peculiar circumstances; and, in truth, the *possibility* of applying them was denied. Hence arose some observations on the general use of the forceps, in which, as we before remarked, there was much opposing testimony. This evening it was again contended, that the shoulders of the child would prove an effectual obstacle to the use of the forceps; besides, as it was possible to introduce the finger into the mouth of the child, a very efficient force was obtained.

Dr. Walshman said, that, in the case related by Dr. Blick, there could not possibly be an easier position for extraction of the child, than that in which it was placed: he was surprised that any one should think of applying the forceps under such circumstances. He said that he had seen and attended many cases of a similar description, but had never used the forceps; and, indeed, he thought it impossible to apply them. With respect to the use of the forceps generally, he observed, that he had been compelled to resort to them in a great number of cases, but had always employed them with ease and safety. He had, however, known the forceps used so as to produce extensive inflammation, and, subsequently, sloughing of the vagina, and other mischief. The forceps would succeed in many instances where the vectis would be of no avail. The inflation of the lungs, was the next obstinate point of contention, for the battle was fought inch by inch. It was strenuously argued, that it was impossible to inflate the lungs of the child, because it was necessary, in order to effect this object, that the point of the catheter should pass into the trachea. Now, as the position of the child was with its face towards the sacrum, it was contended, that a double curve must be made, which could not be accomplished with the female catheter. It appeared, however, that Dr. Blick had by no means asserted that the catheter entered the trachea, but simply the mouth; and to an objection from Mr. Waller, that in this case the air would pass down the œsophagus, Mr. Kingdon remarked, that the pressure of the child's nose against the parietes of the vagina,—the pressure on the neck, which would push the œsophagus backward and compress it against the spine, taken in conjunction with its collapsed state, rendered the artificial respiration complete.

The *necessity* of employing artificial respiration in Dr. Blick's case was then denied; even admitting its possibility, it was said, that the most judicious treatment, and the one generally pursued under the circumstances, was, not to cut through the funis, but to allow the child (when in such a weekly condition) to retain its connexion for some time with the placenta; thus, of course, permitting the circulation to be continued. Dr. Blick reiterated strenuously the opinion which he expressed on a former occasion, that in 99 cases out of 100, the placenta was detached from the womb at the act of expelling the child; and, consequently, he did not believe that circulation through the funis was carried on after this event had taken place. He contended it was impossible the fœtal and respiratory or general circulation should be continued both at the same time—that when the one ended, then the other commenced. In opposition to this, the familiar fact was adduced, of pulsation being observed in the chord, in almost every case, at the time of applying the ligature, and when the child is breathing and crying; the very circumstance, also, of the necessity of tying the funis after the birth of the child, was urged as a proof of circulation being still continued within it. Dr. Blick said that the navel string was never tied in brutes, and he denied that pulsation existed in the chord.

Dr. Blick underwent a heavy *cannonading*, but he fought manfully. Upon the whole, the debate, although of a very irregular character, was highly interesting. Dr. Williams was tremendously severe in his denunciation of instruments; comparing a man who went about carrying forceps up his sleeves, to an assassin with his stiletto.

NON-MEDICAL CORONERS.

INQUESTS AT DOVER AND SHELTON.

[*From a Correspondent.*]

The following are the facts connected with the case of Weston:—Tuesday, Oct. 2., John Weston obtained a presentation ticket from a lady in the town, to the *Dover Dispensary*, of which Mr. Sankey is the surgeon. The patient had a rheumatic affection, with some degree of fever, which was not considered dangerous, and was bled by the apprentice of Mr. Sankey. The patient, aged 45 (who, in his younger days had been a servant to a medical man), expressed his opinion, that he had received injury from the operation. About four o'clock on Wednesday morning the arm had become so much swollen, that the patient desired his wife to go for medical assistance, that he might have relief from the bandage, which was so tight on the arm. An assistant came, slightly loosened the bandage, and administered an anodyne. After this things grew worse, and Mr. Sankey, with his two PUPILS, performed some operation upon Weston's arm. On Thursday morning at four o'clock the patient expired.

Dissatisfaction arising in the *Dispensary Committee*, and also with the public generally, an inquest was determined on; Mr. Sankey hearing of this, observed, he should court inquiry. The inquest was held on Thursday evening, at the Wellington inn, by John Shipden, Mayor and Coroner of Dover. At this time only Mr. Sankey and his pupils were examined; neither the man's wife, nor any other person being called; Mr. Sankey informed the court, on his oath, *that the artery of the arm had not been cut, and that he had tied it.*—The incongruity of this evidence not being apparent to non-medical persons, a verdict was returned, *Died by the visitation of God!* The public mind now being more dissatisfied, application was made to the Coroner for a second inquest, whereupon he stated, he would cause the arm to be inspected by some medical men, especially appointed for that purpose, and upon this report would depend his granting a second inquest. A physician and two surgeons accordingly inspected the arm, and reported to the Coroner, that they had found two ligatures placed on the brachial artery, from below which, one inch of the same artery had been cut away, (at the part corresponding with the orifice of the vein, in which the patient had been bled,) thus preventing their decision as to whether the artery had been wounded in bleeding. Notwithstanding this circumstance more imperiously called for a second inquest, still the Coroner could not see that any further proceedings were requisite, and therefore permitted the man to be buried on the Sunday following. Several individuals in the town having remonstrated against the conduct of the Coroner, he at length convened a meeting of the magistrates, when a *second inquest* was determined on, and was held on the following Tuesday, at the Saracen's Head Inn; the body having been for this purpose disintered, on account of some of the jurymen on the former inquest being absent. At this inquest, Mr. Sankey informed the court, that after the patient had been bled by his apprentice, he thought that an *internal arterial bleeding* existed, to put an end to which, he *tied* the artery above. That after Weston's death, he found, on examination, the artery had *not* been cut; thus acknowledging, that he had performed the operation unnecessarily. With respect to the portion of artery that was missing, he stated, that he directed his assistant to cut off about one inch of it, and slit it up longitudinally, to see if it were diseased, which does not appear to have been the case. The evidence of the wife being now wanted, the Mayor (strange to say) at that very juncture informed the court, that he had just received the intelligence that Mrs. Weston was in strong fits, and on this account no further proceedings were taken; as Mr. Sankey did not produce the portion of artery, the public have not been able to obtain proof of its not having been wounded. We therefore submit to the medical public, whether any other construction can be put upon this proceeding, than that the artery had been in reality injured, but, that Mr. Sankey having positisely sworn at the first inquest that it was not, found himself under the necessity of appearing the *bad surgeon* rather than the PERJURED MAN; on this most material point let the competent decide. On the following day it was discovered, that Mrs. Weston had *not been in fits,* as had been stated, and that she was perfectly in a condition to have given her evidence, but that the Coroner had not sent for her! The intelligence of Mrs. Weston being in fits, was traced to a woman who has since sworn before the said *Coroner,* that *no one* had induced her to make that false report, and that she had done it *spontaneously!!* Thus this point, like that of the wound of the artery, lies INTRENCHED BEHIND OATHS, the truth of which is irreconcileable with the facts developed. With regard to the verdict of the second inquest, a majority of *one* decided as before—*Death by the visitation of God*; the rest of the jurors confessing themselves utterly unable to come to such a conclusion.

On Monday the body of a new-born male child was discovered in a privy at the back of a house in Shelton. A woman named Ann Bailey, suspected to be the mother, was accordingly taken into custody. An inquest was held on the following day, at the Red Lion Inn, before John Dent, Esq., when the following evidence was brought forward:—William Bailey (uncle to Ann Bailey, the prisoner) deposed, that on Sunday evening his niece complained of pain in her bowels; she took some syrup of rheubarb, and said it relieved her; after witness had retired to bed at night, he heard his niece go out of doors; she remained out a considerable time, afterwards returned into the house, and retired to bed till the following morning. Catherine Till, a neighbour, had entertained suspicions of Ann Bailey's pregnancy, and was induced to examine the privy, where she found the body of a newly-born male child, immersed in the filth, and covered with ashes. The latter part of this witness's evidence was corroborated by a man named Moor, who assisted in taking the body out of the privy. Mr. Harding, surgeon, on Monday was called in to examine the infant, which the prisoner acknowledged to be hers. This gentleman then gave it as his opinion that the child was still-born. After the evidence, Mr. Dent addressed the jury. He explained the law as to the case before them, observing, that though it appeared, from the evidence of Mr. Harding, that the child was not born alive, yet the offence of concealing its birth was so fully proved against the prisoner, that it became their duty to make her a public example. This could only be done by returning a verdict of wilful murder against her. If they did not return a verdict to that effect, the prisoner must be immediately set at liberty, and the ends of justice defeated. The jury consulted a few minutes, and returned a verdict of *Wilful Murder* against the supposed mother, who was accordingly committed to Stafford gaol, on the coroner's warrant.—*Pottery Mercury.*

THE LANCET.

London, Saturday, November 24, 1827.

We this week give the continuation of the discussion before the Medico-Chirurgical Society, on the treatment of Erysipelas; and as far as circumstances permit, a faithful report of the admirable reply of Mr. Lawrence. It is impossible not to observe the marked influence which the publication of the proceedings of this Society has had on the character and spirit of its discussions. Its meetings have never been so numerously attended, and its debates have never been characterised by so much ability, as they have been during the present season; and it remains only for the Society to emancipate itself from the implied obligation under which its members are supposed to be restrained from giving publicity to its proceedings.

We cannot, at this time of day, anticipate any opposition to the course which it is incumbent upon the Society to take, in order to give full effect to its own usefulness, and to render its labours available to the profession and to the public. No member will now, we presume, venture to urge that the immediate publication of reports of the Society's proceedings will have the effect of injuring the *sale* of their annual or biennial volume of Transactions. The times are changed since we were denounced as "literary depredators and vampires," for conveying this species of information to the profession, and we now find even our old opponent, Dr. James Johnson, among the most strenuous champions of publicity. By dint of a free application of the The Lancet, and a spare diet, the Doctor has been brought to his senses; he is mainly indebted to us for the removal of an apparently desperate state of cerebral congestion, and the admission of a few rays of intellectual light into a quarter, where "Chaos and old Night" once held undisputed sway. The Doctor now declares all who throw obstacles in the way of giving publicity to medical proceedings, to be "vampires,"—he has always recourse to a *vampire* in a case of emergency; he now ekes out his quarterly Journal with our lectures and hospital reports, and even invites students to furnish him with reports of hospital cases, for the tempting premium of a complete set of his own review, which set of course contains the article in which he recommended the expulsion of any student, who should venture to communicate such reports to a Medical Journal. But we will not press the Doctor too closely. We phlebotomised him to syncope in our younger days; but he must at any rate give us credit for a generous forbearance at the period of his exhaustion and decline. We could never say of him, "*cum talis sis, utinam noster esses;*" but we are, nevertheless, content on the present occasion to acknowledge him as an ally, without too rigorously scrutinising the grounds of his conversion.

If there be any by-law or order in Council of the Medico-Chirurgical Society, prohibiting its members from giving publicity to its proceedings, some member should at once move that such by-law or order be rescinded, and follow up his motion by a resolution declaratory of the inexpediency of such restraints upon publicity. If any member should be disposed to resist such a motion, we shall have the satisfaction of knowing the grounds of his opposition; and, though it may be matter for our future consideration to determine whether we shall continue giving reports of the Society's proceedings, unless some such measure as that we have pointed out be adopted, we pledge ourselves to give a faithful report of the observations which may fall from any advocate of the "hole and corner" system.

We may lay it down as an axiom that there are two classes, and only two classes, of men who have reason to fear publicity, and who consequently dread and hate the press. These two classes consist of *knaves* and *quacks*; in which last designation we comprehend not merely medical quacks, but political and literary empirics—quacks in philosophy, in religion, in morality, in *vertù*—pretenders, in short, of all descriptions, callings, and complexions. Empiricism is no more confined to the medical profession, than pedantry is the exclusive characteristic of pedagogues and philologists. Medical quacks, and scholastic pedants, furnish, no doubt, some of the most obnoxious specimens of the classes to which they respectively belong. Dr. SOLOMON attacked our surplus population with his *anti-impetigines*; and Dr. GEORGE, of Eton College, observed of FREDERICK the GREAT, that, notwithstanding all the reputation that monarch had acquired, he (Dr. George) doubted whether his majesty would have been able to conjugate a verb in $\mu\iota$. Here are two goodly ensamples of quackery and pedantry; the SOLOMONS and GEORGES are of all professions. A quack is one who seeks to defraud us of our money or our approbation, by pretending to a knowledge of something of which he is ignorant; while a pedant is one who disgusts us by the impertinent obtrusion, or unseasonable display, of the knowledge he has acquired. Hence quackery and pedantry are co-extensive with the fraud and folly of mankind, and will be found to flourish in every department of human knowledge; for whatever men know, they may unseasonably and absurdly display; and whatever they are ignorant of, they may impudently pretend to have acquired. It will be seen that we have not included *fools* among the enemies of publicity, because a mere fool is not worth, and could scarcely feel, the powder and shot of public animadversion; but if a fool unite any portion of mischievous pretension with his folly, he will then take his place among one of the classes of *quacks*. Quackery is a sort of pepper-and-salt mixture between knavery and folly; approximating to the former, if the pepper predominate, and to the latter, if there be a greater proportion of the colourless ingredient.

The dread and detestation of the press, which more or less characterise both these classes, are phenomena which admit of an easy explanation. To begin with the knaves: whatever may be the rank of the individual belonging to this class, or upon whatever scale they may conduct their operations, they will be found, one and all, to entertain a common predilection for *concealment*. From the First Lord of the Admiralty, who may have appropriated a portion of the public siller, or the eminent banker who may have imitated the signatures of his confiding customers, down to the foreign musician, who may have escaped from the shackles imposed upon him by the harsh laws of his native country, for a series of similar imitations, to mingle in our domestic circles, and approximate his respectable person to the wives and daughters of our aristocracy; it will be found that each and all of these persons have a common passion for *concealment*. If Drs. GALL and SPURZHEIM failed to find the organ of *secretiveness* as large in this class of persons, as that which impels them to appropriate the possessions of their neighbours, they must abandon their system of phrenology. Now, if it be the nature, or rather if it be the interest, and, consequently, part and parcel of the character of these persons to love concealment, it follows that they must dread and hate the instrument which drags them from their beloved seclusion. How bitterly must that ingenious person, Mr. WILLIAM SOAMES—we run the risk of libelling that gentleman, since we know that we can keep him some time at *bay*—with what bitter feelings, we say, must Mr. WILLIAM SOAMES have regarded the newspaper press, which teemed with the broadest insinuations against his character; and incessantly poured forth paragraphs, of which the manifest tendency was to render his life uncomfortable, and even to hurry him to an untimely grave! How acute must have been the sensations of the foreign musician, who selected our country as a place of refuge from the galleys, to which he had been condemned by the too rigorous dispensations of the French penal code, when he saw his character attacked in one English journal, by a republication of the official document detailing his seven successive convictions for different forgeries, and his honour wounded in another, by an unfeeling allusion to the brands which the public executioner had inflicted on his person. Incensed at this inhospitable treatment, the refugee sought redress in an English court of justice; and it was one of the proud triumphs of our criminal law, that the respectable editor of an English journal was found guilty of the *crime* of informing his countrymen that a foreigner, who was gaining access to our fire sides, and who had nearly succeeded, under the patronage of an archbishop, in maintaining a situation in which the education of youth would have been confided to his superintendence, was a convicted and branded felon!

Quacks have nearly the same interest as knaves in concealing their ignorance and frauds, and for the most part regard with the same fear and detestation the instrument which unmasks their pretensions. This must be understood with some qualification, because the exposure of ignorance and fraud is not always sufficient to open the eyes, and enlighten the understandings, of mankind. Some perverse dupes are not to be reasoned out of their infatuation; they had rather hug the impostor, than confess the cheat; and quacks, speculating upon this infirmity of human nature, will sometimes court even an infamous notoriety. Notwithstanding this exception, however, the principles we have laid down admit of very general application, and we shall conclude by observing, with reference to the subject which led to these remarks, that, if there be any one member of the Medico-Chirurgical Society, who has more especial reason than another to dread publicity, and shrink from the exposure of the press, *that member* belongs to one of the two classes above designated.

MEDICO-CHIRURGICAL SOCIETY.

B. Travers, Esq. President.

The Secretary read some additional cases of erysipelas, communicated by Mr. Lawrence. Among these we noticed an interesting example of the phlegmonous species in a medical man; it affected the hand and forearm, and was immediately stopped by an incision, which was followed by rapid recovery: another of erysipelas of the face, with severe affection of the sensorium, following an operation, immediately and effectually relieved by copious venesection (two pints) and purging; phlegmonous erysipelas of the forearm, spreading in spite of venesection and leeches, and stopped by incision; and, lastly, a fatal case showing the danger of the treatment by compression, recommended by a French surgeon, we believe Velpeau.

A short communication was then read from Mr. C. Hutchison, of which we could only collect, that it contained an account of a half finished case, although the name, occupation, and abode of the patient, were stated at full length, viz. Mr. Salter, silversmith, Strand!! and that the author protested loudly against long incisions in erysipelas.

After Dr. Birkbeck had offered some strictures on the treatment pursued in these cases, a pause ensued, which was ended by

Mr. Lawrence rising to address the Society. He began by replying to the remarks of Dr. Birkbeck, and then observed, that as no other gentleman seemed inclined to speak on the subject, he would proceed to make a few observations by way of explanation and answer to the several gentlemen who had offered remarks on his paper. "Erysipelas," said Mr. Lawrence, occurs so frequently, and is so often of a serious nature in its immediate symptoms and consequences, that I think the time of the Society has not been misemployed in discussing the subject, more especially as the profession seem by no means unanimous on the important point of treatment. I am glad that my communication has been the exciting cause of such discussion; and I shall be still further gratified, if other members should be induced to communicate to us the results of their experience. I speak now on the supposition, that of the two opposite methods of treating erysipelas, one must be right, and the other wrong. I differ, therefore, entirely from a gentleman who spoke at the last meeting, and who admitted that both these methods were equally successful: he even went further, and attempted to explain how these opposite means accomplished the cure of one and the same complaint. If I had admitted the fact of equal success, I should not have attempted the explanation which this gentleman entered on, but inferred that neither course of treatment had any effect, that the disease would pursue its progress uninfluenced by our measures. The exact nature of my views has been misapprehended by those who have addressed the Society, in opposition to what they have considered as my opinions; and I am not surprised at this, for some of these gentlemen had not heard the paper read, and those who did hear it could not be much better off, as the audience could only gain a general idea of the author's sentiments, from a single rapid reading of a long paper. I must observe, then, in the first place, that I do not recommend one and the same mode of treatment in all cases; I do not advise venesection in all instances of simple erysipelas, nor incisions in all those of the phlegmonous kind. I have endeavoured to show, from a review of the history, symptoms both local and general, and effects, that erysipelas is an inflammatory affection; that it is, in short, just inflammation of the skin and cellular texture, and that it is no more. I have hence argued, that on principle, it ought to be treated anti-phlogistically; and I have attempted to prove, further, that the evidence of facts supports this deduction of reasoning. But the antiphlogistic treatment embraces a wide range in point of degree; from blood-letting, local and general, with purging, vomiting, the free use of mercury, antimony, with low diet, to the exhibition of a mild aperient and some saline medicine. Our treatment of erysipelas, like that of any other inflammation, must be graduated according to the age, constitution, previous health and habits of the patient, the period of the complaint, &c. &c. If my observations had been addressed to students, instead of practitioners, I should have entered at greater length into the modifications of the general principles, which various circumstances may require, and the restrictions under which particular measures, especially those of the more active kind, are to be employed. I have, however, adverted to the chief of these. I have stated that erysipelas frequently ends in resolution, that is, in the spontaneous disappearance of the symptoms; and hence, that severe measures are not universally necessary. I have observed, that the parts affected, the skin and cellular substance, are not essential to life, and that their functions can be carried on after they have undergone extensive change of structure; hence, the same reasons for very active treatment do not exist here, as in inflammations of the brain, lungs, or heart, or in those of the eye. I have stated further, that when erysipelas occurs in old and debilitated subjects, the powers of life are soon seriously impaired, and our efforts must be directed rather towards supporting them, than the combating the local inflammation; and that I have often seen such patients labouring under erysipelas of the face in its advanced stage, with rapid and feeble pulse, dry and brown tongue, recovered, under circumstrnces apparently desperate, by the use of bark and wine. These exceptions might, I think, have exempted me from the charge of using one kind of treatment indiscriminately in all cases; a very small share of experience would be sufficient to show the absurdity of such a proposal. In asserting that the antiphlogistic treatment is proper in erysipelas, I speak of the beginning of the disease, when the original and proper character of the affection is apparent; and I am decidedly of opinion, that in some shape or other, such treatment will always be beneficial in that stage. In many instances, I am convinced that active antiphlogistic measures are of the greatest service in lessening the severity both of the local and general symptoms. And here I feel it incumbent on me to show, that such means actually possess the power of controlling the disease; for Mr. Brodie, if I understood him rightly, denied this position. He said: that you cannot *put out* erysipelas any more than you can *put out* typhus. Now, I will not call this an explanation of obscurum per obscurius, because I do not think erysipelas an obscure subject; but it seems to me an attempt to elucidate what is already clear enough, by what is comparatively obscure. Before I can understand this statement, I must ask Mr. Brodie what he means by typhus? Is the meaning of typhus so clear, is the state denoted by it so well understood, that we may hold up the word like a torch, to throw light into the dark corners of pathology and therapeutics? Are we to understand by typhus, a certain class of continued fevers? those in which the functions of the nervous system are seriously impaired, and in which the dangerous symptoms are referrible to disorder of the head? Or merely a certain stage of such fevers, that advanced period, in which a collection of the most formidable circumstances proclaims the serious danger of the patient, showing that the nervous system has been deeply affected, and that for some time? I shall readily admit the propriety of Mr. Brodie's representation, if he uses the word in the latter sense. A disorder of the brain, arrived at the point now alluded to, cannot be *put out*, or suddenly checked; the same observation holds equally good of pneumonia, enteritis, and all other inflammations, considered in an equally advanced stage. But I beg to lead Mr. Brodie back from the end to the beginning of such a case, and to draw his attention to the symptoms of the first 24 or 48 hours. After an attack of shivering, lassitude, inability for exertion, bodily or mental, confusion and pain of the head, thirst, white tongue, loss of appetite, and nausea will come on. I assert, and repeated experience enables me to assert it confidently, that the free use of the lancet, with other appropriate treatment, will cut short such an attack, will suddenly stop it, and reduce to a few hours what would otherwise last for days or weeks. In the same way, active treatment of the early stage will arrest the progress of erysipelas; not immediately put an end to it, as you can stop the burning of a candle by an extinguisher, but lessen the violence, and greatly abridge the duration of the disease, in short, will *put it out*, as far as any kind of inflammation can be put out. Mr. Lawrence stated, that he had recently experienced in in his own person the truth of these remarks in respect to that collection of symptoms denoting affection of the head, which characterise the commencement of fever. On the preceding Thursday, he had had an attack of shivering, followed by loss of strength, confusion, and heaviness of head, &c. His friend, Dr. Tweedie, who saw him within twelve hours from the first feeling of illness, directed a large bleeding; and he lost 32 ounces of blood, with complete relief; he slept well, and awoke quite well in the morning. On Saturday, feeling in his usual health and spirits, he imprudently exposed himself to some causes of excitement, and experienced a relapse on Sunday, with more alarming symptoms than at first. These were again stopped by the loss of more than 40 ounces of blood, and he was consequently enabled to redeem his pledge of attending the Society this evening (Tuesday). He felt convinced, that the result would have been very different, had he been under the care of one who held the opinion that fevers cannot be *put out*, who would therefore allow them to burn on until they *go out* of themselves, which is often a very tedious process, to say nothing of the danger. He repeated his opinion, that many cases of continued fever may be stopped in the beginning, or *put out*; and he thought it more necessary to express himself very earnestly on the subject, as he considered the opposite doctrine calculated to lead to a very pernicious mode of practice, and likely to be the more injurious, from the high authority under which it would go forth to the world.

Mr. Lawrence then alluded to the treatment of erysipelas by bark, and expressed his surprise that its advocates had not favoured the Society with their opinions or experience. The only testimony they had heard from that quarter in which the practice had originated, and where it had been commended in such unqualified terms by Drs. Fordyce and Wells, was the very clear and able statement of Dr. Roots, who had decidedly condemned the use of the bark, and mentioned his preference of the antiphlogistic plan. Mr. Lawrence said, that when the febrile symptoms had been mitigated, the inflammation stopped, and the tongue had become clean, that is, when the patient is well, he saw no objection to the bark. He professed not to know what the effect of bark is on the animal economy, excepting its singular power of stopping intermittent fever, and wished for information on the subject. He alluded to the circumstance of its frequently purging, when given in large doses; and he had seen cases of erysipelas treated by it in hospital practice, where the nurse of her own accord was daily administering an active purging mixture. Mr. Lawrence proceeded to the subject of phlegmonous erysipelas, and observed, that we must not treat diseases merely according to their names. Diseases appear quite distinct in nosologies, but we find them shaded off, and inseparably blended in nature, so that it is frequently very difficult to mark out their boundaries. He exemplified this in respect to simple and phlegmonous erysipelas, and then defined the exact kind of cases which he included under the latter term. He by no means meant to recommend incisions in all cases, and begged to apprise Dr. Bright in particular that he did not. The Doctor had informed the Society on a preceding evening, that he rejoiced in not having heard the paper read, as he should probably have directed incisions in the case of an old lady with erysipelas of the face, who had got well without them. The old lady had formed a more correct estimate of the Doctor's judgment and prudence, than his own modesty had allowed him to do; she knew that if he should hear of any foolish proposal, he would not try it on her. Mr. Lawrence now stated, to ease the mind of

Dr. Bright, and of all old ladies, that he had never practised incisions in erysipelas of the face, except in a few instances, where the copious cellular tissue of the eyelids had become the seat of the affection, and had suppurated and sloughed. Here he had found the practice very serviceable, and he need not add that it was quite safe. Various objections have been made to the practice of incision in phlegmonous erysipelas; some of them good, others good for nothing. You, Sir, addressing the President, stated that leeches and fomentations, with the free use of calomel and antimony, would accomplish the object; and that you had always succeeded with these means. If these representations be well founded, I readily admit that incisions ought not to be thought of. It is a question of experience, and, on this point, my experience is just opposite to yours. I have repeatedly found both general and local bleeding inefficacious in this affection; and the cases related in my paper, will afford ample evidence on the point. General bleeding exerts very little influence over the inflammation of the cellular texture; it is, therefore, only to be employed occasionally, when the general symptoms may demand it: the local abstraction of blood is more useful, and, in combination with suitable internal treatment, may arrest the affection in its earliest stage. But the inflamed cellular substance passes rapidly into suppuration and gangrene, and these destructive processes quickly spread over a large part, or the whole of a limb. I know of no treatment so capable of preventing them, while it is yet time to accomplish that point, or of limiting their extent, and favouring the processes of separation and reproduction, as the practice of making an incision through the affected textures. Other objections to this treatment are of a sentimental kind; it is said to be painful, severe, bloody; that it will frighten the patient, and alarm the attendants. Such inconveniences belong, more or less, to all operations; but the question is, whether the operation be necessary, not whether it will give pain or shed blood. If it be necessary, such objections are empty and frivolous. But what ground is there for considering this proceeding so very painful? Is the pain of a cut in a direct ratio to its length? If an inch of incision produce a given quantity of pain, will a foot give twelve times as much? I apprehend that the *time* occupied in cutting, is a more important circumstance in determining the quantity of pain, than the length of the incision; and as the largest cut that can ever be required, may be made in five, or at most in ten, seconds, I cannot consider it a very painful affair. Mr. Cooper cannot be pleased by any kind of incisions: Mr. Hutchison's are too numerous; mine are too long. In short, he disapproves the practice altogether, and may, therefore, save himself the trouble of criticising the details. I am more surprised at the strong objection which Mr. Hutchison entertains to a long incision: he, forsooth, protests, nay, loudly protests, against the length of the incisions which I have made in some cases. Who is this protester? One who has recommended, that from six to eighteen incisions of *about* an inch and a half, should be made in the inflamed limb! Thus the minimum length with him is nine inches, while the maximum reaches twenty-seven inches, that is, three quarters of a yard! The largest I have made in any case, was fourteen inches. But, after all, what are his multiplied short incisions? Merely one long cut made by instalments. I think that both modes will answer the end; and then the selection will be a matter of taste for the patient's determination in each case. Should any one prefer having twelve separate cuts of an inch an half, to one of eighteen inches, I can see no objection to the gratification of so singular a taste. I must only observe that, were I thus circumstanced, I should *loudly protest* against Mr. Hutchison's practice. Mr. Cooper has not been contented with adducing all the arguments that his own reasoning and experience could furnish, but has shown his great zeal in opposition to the practice of incision, by industriously collecting every thing that he could hear of capable of being turned into evidence against it. He has alluded to three cases, not one of which does he seem to have personally witnessed. Two of these I have myself communicated to the society, so that the public will have the opportunity of judging how far they justify inferences fatal to the practice. Indeed, I have made a point of communicating every scrap of evidence that can be viewed in an unfavourable light. Mr. Cooper had heard of a case, in which fatal hæmorrhage took place from the incision. If he had heard of fatal hæmorrhage in amputation, or any other operation, would be therefore conclude that such operation ought not to be performed? The question is, whether the bleeding is essentially connected with the practice, and therefore unavoidable, or whether it is a circumstance that we could easily control. The incision does not go deeper than the subcutaneous cellular tissue: surely there can be no difficulty in restraining it, either by ligature, by position of the limb, or by compression, if it should proceed to a serious extent. Mr. Cooper heard of another case, where the patient died from the shock of the incision. As he is a person whose accuracy of expression is well known, we must suppose that he means by death from the shock of an operation, a violent impression on the nervous system, ending fatally within a short time. I made the incisions in this case; no nervous symptom of any kind was apparent during ten minutes, at the end of which I left the patient quite tranquil. He was sleeping quietly at the expiration of twenty-four hours, with a tranquil pulse; and he survived the incisions thirty-six hours. The society will not be much surprised at the termination of the case, when they hear that it was a violent inflammation of the whole upper extremity, consequent on a puncture in dissection, and that I did not see the patient until an advanced period of the affection. In the third case which Mr. Cooper had heard of, sloughing of the cellular membrane took place after the incisions; there is no doubt that he may hear of many cases in which the same event has happened. When the inflammation of the cellular substance has gone to a certain extent, sloughing will ensue; incision will not prevent the occurrence, but it signally promotes the separation of the dead parts, and the subsequent healing. Has Mr. Cooper seen or heard of any case, in which incisions *caused* sloughing of the cellular membrane? I have not. I trust, Sir, that I have now sufficiently explained what I think respecting the general principles of treating erysipelas, and respecting the modifications and restrictions, under which these are to be carried into effect. The observations which I have heard in this Society, have not altered my sentiments on the former point in the slightest degree; I should now, at the end of the discussion, as at the beginning, express my strong approbation of the antiphlogistic treatment of erysipelas, and my equally strong condemnation of the tonic and stimulating plan."

Mr. Guthrie said that he was among those who had not heard the original paper of Mr. Lawrence read, and was therefore glad at having been furnished, this evening, with an epitome of the opinions contained in that paper. In many of the opinions expressed by Mr. Lawrence, he concurred, from others he differed, and in what points he differed he should now proceed to state. He might, however, observe, at the commencement, that seeing so many physicians around him, he was surprised that no one had replied to the doctrine advanced by Mr. Lawrence, that any fever could be put out.

Mr. Lawrence observed, that he stated no such thing.

Mr. Guthrie understood Mr. Lawrence to have made the assertion, and appealed to the President, to know what was the exact nature of the expression.

Mr. Travers did not understand that Mr. Lawrence had made use of the expression which Mr. Guthrie attributed to him, but he would ask Mr. Lawrence himself.

Mr. Lawrence said, that he did not make an unqualified statement, but only asserted that fever could be shortened by proper treatment at its commencement. He would however appeal to the President to know, whether, after having waited before he commenced his speech, for members of the society to make observations on his paper, he was not entitled to waive a reply. He should not claim this privilege, if from circumstances which he had stated in his speech, he had not felt himself unable to resume the discussion.

Mr. Travers said certainly Mr. Lawrence would be excused from making any reply. Mr. Lawrence then left the room, apparently very much exhausted.

Dr. A. T. Thompson made some observation on the treatments of erysipelas, and advocated the use of bark in this disease.

Dr. Babington. If, on the breaking up of this meeting, any member should ask another what had been the subject of the evening's discussion, it might be answered, the treatment of erysipelas by antiphlogistic measures. But if it should be asked, is erysipelas then to be treated antiphlogistically? that was a question to which an answer of yes, or no, could not be given. I consider erysipelas to be a disease, *sui generis*; frequently changing its character; requiring to be watched from day to day, and from hour to hour; demanding mild antiphlogistic measures in some persons, in others, a tonic and stimulating plan of treatment. It occurred sometimes in broken up habits, with symptoms of general debility; and it would be just as reasonable to expect to make a jaded horse run another stage by bleeding, or other measures which reduced his strength, as to expect to cure erysipelas by depletion. Erysipelas would require in some cases, especially in large towns, bark, ammonia, and wine, from its commencement; and therefore no plan of treatment can be laid down as uniformly applicable. He must repeat, that he considered it a disease, for the treatment of which no particular directions applying to all cases could be laid down, but one in which the judgment of the practitioner must be exercised, according to the icrcumstances of each case.

Mr. Guthrie again rose, and stated, that he should not, under present circumstances, allude to what had fallen from Mr. Lawrence, as he always preferred an open combat. As to the disease which had formed the subject of the evening's discussion, he had seen it under all its forms, both in private practice and the public service, and had treated it in all its stages. From repeated experience, he had no hesitation in saying, that it was necessary to adopt opposite plans of treatment. It often happened, that in the Westminster Hospital he had two patients in the same ward, one of whom he treated on the antiphlogistic, the other on the stimulating plan. In fact, no rule could be laid down for the treatment of these cases, which must depend on the particular circumstances of each individual case. But he had no hesitation in saying, that neither fever nor erysipelas could be suddenly put out, when either had regularly commenced its action on the constitution; for if 10, 20, 30, 40, or even 60 ounces of blood were abstracted from a patient under erysipelas, the disease would not be shortened, it would run its course. Mr. Guthrie then commented on the treatment of erysipelas by incision, which he had himself very extensively used, and of the good effects of which he had some time ago published a case.

Dr. **Tweedie** stated that he should be sorry the meeting should adjourn, and probably reports of the discussion go abroad, without contradicting one of Mr. Guthrie's assertions, that fever could not be *put out*, according to the expression of Mr. Brodie. He maintained, from very ample opportunities of treating fever in all its forms and varieties, that, at the commencement, it was, in most instances, possible completely to annul its progress by vigorous measures, especially bloodletting; and that even a relapse might be cut short by a modification of antiphlogistic practice, according to the particular case. He alluded to two instances of relapse, which had occurred a few days before in the Fever Hospital, and in which he succeeded in arresting the symptoms by bloodletting. He therefore begged to offer his dissent from the statement on this point advanced by Mr. Guthrie. Dr. Tweedie then expressed his satisfaction at the opportunity which the adjourned meeting had afforded, of obtaining the opinion of eminent members of the profession on the nature and treatment of erysipelas. He expressed his own conviction, that it was essentially antiphlogistic, but, as Mr. Lawrence had very distinctly stated, the treatment to be adopted, although strictly antiphlogistic, must have reference to every individual case. One might require large and repeated bloodletting, a second a more moderate use of the lancet, while, in a third, this evacuation might be altogether dispensed with, and saline purgatives, with antimonials, employed. There was one form, however, which generally demanded bloodletting,—that of the face, in which there was usually more or less cerebral excitement, which was only safely treated by bloodletting. Dr. Tweedie then alluded to the opinions inculcated by the late eminent Professor Gregory, of Edinburgh, who was a strenuous supporter of the treatment of erysipelas by bloodletting; and, in his allusion to the idea that erysipelas assumed a different character in London and in Edinburgh, contended that this notion had its foundation more in fashion, than in the result of sober experience. Dr. Tweedie shortly alluded to hospital erysipelas, which had prevailed very much lately in the Fever Hospital. In this form, bark was generally thought almost a specific, but having repeatedly failed in his hands, he was now inclined to consider it of little or no value, and generally resorted to a mild cooling treatment with success.

Mr. **Guthrie** again rose, to explain what he had stated regarding the treatment of fever; and in reply to Dr. Tweedie's remarks, told the Society that he was aware of the efficacy of the treatment of fever by bleeding, which had been introduced more than twenty years ago, by Dr. Jackson, so that the practice was by no means novel.

Mr. **Travers** observed that the time of the Society had fully expired, and he did not wish to detain the members any longer. Before parting, however, he would just say, that from the discussion which had taken place, one practical fact at least had been shown, namely, that leeches might be applied to erysipelatous parts, and also incisions be made through them, not only without danger, but sometimes with advantage. In summing up the results of the debate, he could not refrain from expressing his opinion, that erysipelas would ever require a varied plan of treatment. As to blood-letting, he considered that but rarely necessary; that a milder antiphlogistic course would suffice, such as calomel, with antimonials and purgatives, in the majority of cases; and that he had never found it necessary to resort to any further abstraction of blood than could be procured by the application of from thirty to forty leeches, repeated according to the urgency of the case—from the orifices made by which a constant oozing of fluid took place, which relieved the tension and pain of the limb. As to the practice of making incisions, if he imagined them necessary at all, he should be content with the mode of puncturing the inflamed part with a lancet, as mentioned by Dr. Babington to have been practised with the greatest success by Dr. Dobson, Surgeon of the Greenwich Hospital, a practice which he was certain many members present would not lose an opportunity of trying. He could anticipate no case in which the incisions of Mr. Hutchison would not suffice; but as to carrying an incision along a limb to the enormous extent of fourteen inches, or even half that length, it appeared to him to be a practice better fitting the dark ages af surgery, than the present times. It was a practice terrible to the patient, and revolting to the bystanders; and notwithstanding what had been said, it did appear that it was the cause of one man's dying of hæmorrhage, and that in another case the patient had died from the shock of the operation. He felt it his duty to protest against making such long incisions as had been recommended, as an unnecessarily severe, alarming, and dangerous practice.

The Society then adjourned at a quarter past 11 o'clock, till Tuesday, Nov. 27.

MR. GUTHRIE.

To the Editor of THE LANCET.

SIR,—Being equally anxious with "Amicus Justitiæ," whose letter appeared in the 220th Number of THE LANCET, that the truth should be laid before the public, we, the undersigned pupils of the Westminster Hospital, feel ourselves called upon to rebut the charges preferred against Mr. Guthrie, for neglect of attendance at the Westminster Hospital. We therefore most *unequivocally* declare that the author's statement is *false*; and further, that he must have been *perfectly conscious* at the time *that it was so*, if he be, as he insinuates, a pupil of the Hospital.

With regard to Mr. Guthrie's absence on the Saturday alluded to, it will only be necessary to say, that on the Wednesday previous Mr. Guthrie informed us that he would be under the necessity of leaving town, and should therefore visit his patients at the Hospital on Friday, instead of Saturday, *which he did*.

We are, Sir,
Your obedient Servants,

Edw. Davies
Tooker Cooban
T. M. Ridley
B. Verling
Edw. G. Williams
H. R. Donne
William Wade
W. J. Thomas
William Trasdale
Thos. Williams
James Grant
George Knapp
George Baillie
J. Fry
James Davidson
Thos Ward
J. M. Walker
John Folds
Richard Barter
John Dorset
Alex. Kilroy
C. J. Barlow Connell
William Jones
C. H. James
John Whitefield
J. C. Lunn.

Westminster Hospital, 19th Nov. 1827.

LONDON MEDICAL SOCIETY'S PAPERS.

To the Editor of THE LANCET.

SIR,—I trust to your candour for the insertion of the following explanation of the remarks I made at the General Meeting of the Medical Society of London, on the subject of papers read before the Society. I recited, it is true, an *old* law; but it was an unrepealed law; and I adverted to that statute, not for the purpose of recommending an enforcement of all its provisions, but to show the expediency of that part of the enactment which directs papers to be placed in the hands of the Secretaries or Registrar. It was formerly usual for papers intended to be read in the Society, "to be delivered to one of the Secretaries," who "laid them before the Council." This practice has fallen, almost entirely, into desuetude; probably from the discontinuation of the publication of the "Transactions" of the Society. But it is quite evident, that if some regularity in this matter be not observed, no collection of papers can be accomplished, and consequently no "Transactions" published. The Society has not, since I have had the honour of being connected with it, refused to return a paper to its author, after it had been read; and many papers have subsequently been published in the journals, as papers read before the Society. The reasons I assigned for requiring papers to be placed in the hands of the Registrar, were, 1st. That that officer might present, at the succeeding meetings of the Society, correct abstracts of their contents. 2d. The Society, offering annually two silver medals, one "for the best essay or essays read before the Society, written by a fellow;" and the other "for the best essay or essays read before the Society, written by a corresponding member, or any person not a member of the Society;" could not, if papers were withdrawn and not afterwards published, form a a judgment of the merits of such papers; and an author might thus lose the advantage of having produced a valuable work. 3d. Because, papers that had been read in the Society, have been published afterwards in the monthly journals, as "original communications," without the slightest notice of the Society; and I therefore contended, and justly I think, that the Society had by this practice, been "*robbed of the credit*" of having elicited these communications. I should be ashamed to be the advocate of any "hole and corner" doings in the republic of letters; in discharging the duties of my office, I have always attempted to place in the clearest light the opinions of the speakers and writers, who have come before the Society; wishing to excite discussion, and thereby to elicit *truth*. So much utility has resulted from the Society to which I am attached, it is but fair that it should not be deprived of any of the merit, in which case it will continue to be encouraged, and the interests of science have the best chance of being promoted.

I am, Sir,
Your obedient servant,
JAMES FIELD.

Bolt Court, Nov. 20, 1827.

CASES OF TRAUMATIC TETANUS.

GUY'S HOSPITAL.

CASE 1.—*Tetanus occurring at a month subsequent to the receipt of an extensive lacerated wound of the skin.*—In the following fatal case of tetanus, the symptoms came on upwards of a month after the occurrence of the accident, which consisted in extensive laceration of the integuments of the fore-arm, and, as in a former case, the tetanic symptoms manifested themselves when the wound was apparently in the most healthy condition.

The patient, a man of intemperate habits, 70 years of age, was admitted into the Hospital on 25th September, under the care of Mr. Morgan, with severe laceration and contusion of the right fore arm. The accident happened on the day previously, and was occasioned by the wheel of a brewer's dray, which knocked him down, and passed obliquely over the arm, the old man being in a state of intoxication at the time. He was seen by Mr. Lambert, of Walworth, shortly afterwards, who found a lacerated wound of the integuments along the whole of the back part of the fore-arm, the skin being, in fact, completely detached in one large broad flap. There was considerable bleeding, principally venous; the muscles, however, apparently, were not lacerated, or the fascia injured. Mr. Lambert brought the skin together, securing it by a few sutures and strips of adhesive plaster. On the following day the man was sent to the Hospital, it having been found impossible to obtain for him at home the attention which the nature of his case required. At the time of admission, he was suffering from exhaustion: the loss of blood, with the severity of the injury, the previous state of intoxication, and his age, were evidently causes which combined to produce this effect. Mr. Callaway, therefore, very judiciously commenced with the use of diffusible stimuli, as the julep of ammonia, with some wine. Two days after admission, there was considerable swelling of the arm, and it was apparent that a large portion of the skin which had been replaced, would slough; the plaster was removed, and one or two of the sutures also; the limb was enveloped in a poultice of stale beer grounds; and sulphate of quinine, with a liberal allowance of wine, were prescribed. Under this treatment the slough gradually separated; however, a considerable portion of the integument united; the nitric acid lotion was applied by means of lint at the same time with the beer poultices, and eventually a healthy granulating surface being produced, simple dressing and common poultices were applied. On the 28th of October, (Sunday morning,) in going round the Hospital, Mr. Callaway's attention was directed to the patient, in consequence of tetanic symptoms having manifested themselves. The angles of the mouth were drawn back, so as to give a singular appearance of distortion to the features; the jaws could only be separated to a short distance; the muscles of the neck, but more especially those of the abdomen, were very rigid. It is here worthy of remark, that the old man had been for some time in a state of fatuity, and this became more and more perceptible as he was recovering from the accident. He was exceedingly obstinate, and difficult to manage, and answered all questions in an incoherent manner; so that at the present time no information could be elicited from him with respect to his feelings, or the accession of the tetanic symptoms. The bowels were lax; the pulse small and weak: *the wound of the arm was nearly healed.* Mr. Callaway prescribed five grains of the carbonate of ammonia, with ten minims of laudanum, and twenty minims of Hoffman's liquor, to be taken every eight hours. On the following day, 29th, the jaws could be separated to a greater distance, but the abdominal muscles were equally rigid; the laudanum and æther ordered to be taken every four hours, and forty minims of laudanum given at bed time, On the 30th he was much the same; all the muscles of the body were preternaturally rigid; and although there was no marked convulsive effort, yet he complained of occasional cramp in the muscles on the back part of the legs: thirty minims of laudanum, with eight grains of carbonate of ammonia, and a drachm of æther, were given every four hours. On the 31st, the symptoms continuing unrelieved, the dose of laudanum was increased to *forty minims;* on the 1st of November, to *fifty minims;* on the 2d, to *seventy minims;* and on the 3d, to *two drachms;* which dose was continued until the night of the 6th, when he died.

There was but slight alteration in the man's condition throughout the days enumerated; the leading feature in the case, was rigidity of the muscles, and this rigidity permanent: the alternate increase of contraction and relaxation, which constitute the spasms or convulsions of acute tetanus, were not observable. The recti muscles of the abdomen were, on every occasion that we saw the patient, in a fixed state of contraction; so that the abdomen, to use a familiar illustration, was as hard as a board. On the two evenings preceding the man's death, he became very delirious; the laudanum did not produce any remarkable anodyne effect. The jaws were sufficiently relaxed to allow of nutriment being given, and deglution was not materially impeded.

Post Mortem Examination.

The body was examined about forty-eight hours after death, by Dr. Hodgkin. The only morbid appearance detected, was in the spinal marrow. The cineritious matter throughout the greater part of the cervical portion of the spinal medulla, was much softer than natural; and this was more particularly observed in the right lateral column. We say much softer than natural, because the texture was not so much broken down as to constitute that alteration in the substance termed "ramollissement," although decidedly altered from its healthy and natural appearance.

ST. THOMAS'S HOSPITAL.

CASE 2. *Tetanus occurring on the seventeenth day after a lacerated wound of the toes; successfully treated by Mr. Tyrrell.*—A boy, 15 years of age, was admitted into the Hospital on the 6th of September, under the care of Mr. Tyrrell, on account of laceration of the three outer toes, produced by the wheel of a wagon having passed over the foot. Poultices were applied in the first instance, and subsequently, the wounds being in a healthy granulating condition, were dressed with strips of soap plaster; they were healing fast, and the boy was in every respect doing well, until the 22d, that is, sixteen days after admission. At this time he complained of stiffness at the back of the neck, pain in the throat, and difficulty of swallowing; the jaws could only be separated to a short distance. Six grains of calomel were given, a blister put at the nape of the neck, and a poultice applied to the wound of the toes. On the 23d, the expression of countenance was more indicative of tetanus, although the boy had less pain in the neck: the abdominal muscles were rigid. The calomel had acted once or twice only upon the bowels; the blister had risen. Half an ounce of the oil of turpentine was prescribed to be taken for a dose.

In the evening, it was found that very free and copious evacuations from the bowels had been produced by the turpentine; the fæces were dark-coloured and scybalous. Three grains of calomel, with one grain of opium, ordered to be taken at bed time.

On the 24th, the third day of the existence of tetanic symptoms, the pulse was 106, it having previously been much less quick, it was also somewhat sharp in its beat; the abdominal muscles were rigid, the boy could open his mouth to a short distance. There was slight discharge from the wound, and it was rather thin. A dose of caster-oil was prescribed, the calomel and opium continued.

On the 25th, the patient was better; the caster oil and pills were repeated. On the 27th, there was marked improvement in the tetanic symptoms; the patient complained of great pain in his mouth, and it was evident that the calomel had produced ptyalism.

On the 28th, the boy had much pain and tenderness at the pit of the stomach; a blister was applied to this part, and a grain of calomel only, with a grain of opium, given at bed time. There was still preternatural rigidity of the muscles, although in a much less degree. On the 29th, the calomel was omitted. From this period the symptoms gradually subsided; the wound went on favourably, and the lad was eventually discharged from the Hospital, quite well.

ST. GEORGE'S HOSPITAL.

CASE OF FRACTURE OF THE ILIUM.

A WOMAN, upwards of 70 years of age, was admitted into this Hospital on Saturday the 10th instant, under the care of Mr. Robert Keate, on account of severe injury, occasioned from her having been knocked down and run over by a cabriolet. On examination there was found to be a fracture of the whole length of the crista of the right ilium: there was also a transverse fracture of this broken portion, thus dividing it into two; and in the surrounding soft parts there was considerable swelling, resulting from the extravasation of blood. The nature of the accident was very apparent, crepitus being readily detected. It is perhaps worthy of notice that the motions of the limb were performed with tolerable freedom. The patient was placed in bed, with no particular attention to position, and with no kind of bandage: cold lotion, simply, applied to the part. The poor woman remained without any further means being adopted, and in fact, it would seem, without the nature of the accident being understood, until Monday, when Mr. Keate saw the case. After a *profound* investigation, in which Mr. K. was materially assisted by the *tactus eruditus* of Mr. Rose, it was at length discovered, that there was a fracture of the ilium. Mr. Keate directed a bandage to be applied around the pelvis, and as a further means we presume of keeping the parts in a quiescent state, ordered *a dose of purgative medicine*,—salts and senna.

On the following day, Tuesday, the patient became very uneasy: the respiration was difficult and painful, and she expired about seven o'clock in the evening; no further means having been employed.

The body was examined on the following day, and a fracture of the ilium was found to exist, of the nature we have described. The fourth, fifth, and sixth true ribs of the right side were now discovered to have been fractured near to their angles, and one of them had wounded the pleura costalis. *The injury to the ribs was not ascertained during the life of the patient!* The lungs, more especially on the right side, were gorged with black blood: there were about two teaspoonfuls of serous fluid in each lateral ventricle of the brain.

MR. KEATE'S TREATMENT OF INFLAMED BURSÆ.

As an instance of the "sound chirurgical" practice of Mr. Robert Keate, we may mention the following treatment of an inflamed bursa.

The patient, a young woman, in Princess Ward, has been in the Hospital for several weeks, on account of inflammation and effusion in the bursa of the patella, and various means have been had recourse to without much benefit.

On the 12th instant we found, upon examining the part, *that it was exquisitely tender on pressure:* the integuments were inflamed, and there was considerable tumefaction. Mr. Keate saw and examined the patient in this condition, when she shrunk from the slightest touch; yet in this exquisitely tender condition of the parts he directed eight ounces of blood to be abstracted, *by means of cupping*! It is scarcely necesary to say, that the poor girl could not bear the application of the cupping glass: it occasioned the most excruciating agony. A galbanum plaster (judicious enough, to an inflamed skin) was directed to be applied over the swelling; and still further important, a splint was put behind the joint.—Oh! Hospital of Wonders!

AMPUTATION OF THE THIGH, BY MR. JEFFREYS.

This operation was performed on Thursday, the 15th, on account of extensive disease of the knee joint. The patient, a young man, of scrofulous diathesis, had been an inmate of Prince's Ward for several months past. He was first admitted on account of cachectic sores of the foot: subsequently inflammation and suppuration of the bursa patellæ took place: the bursal cyst was not opened, but to borrow the felicitous expression of Mr. Jeffreys "was allowed to break of itself." Hence arose an extensive diseased surface, with great constitutional disturbance, and ultimately inflammation and suppuration within the cavity of the joint. It is important to remember, that all these circumstances occurred in the Hospital: that the disease about and in the joint had its origin, and pursued its uncontrolled progress, under the *care* of Mr. Jeffreys.

At the time of the operation, the patient was in an exceedingly emaciated condition, the discharge from the joint having been very profuse for a considerable time.

With respect to the steps of the operation—we may truly say, *nil admirari.* The first incision was not carried round the limb, by *one* stroke of the knife, and the subsequent cut, or rather *cuts*, through the muscles, were very awkwardly performed. There was much venous hæmorrhage: five or six ligatures were applied to the arteries.

The joint, when cut into, showed most extensive disease: destruction of the ligaments, absorption of cartilage, and ulceration of the extremities of the bones.

The patient died on the 21st, that is, on the sixth day after the operation.

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Ferrier	0	5	0
Green	0	3	0
Cumming	0	5	0
Curror	0	5	0
Brown	0	5	0
F.	0	5	0
Rutherford	0	5	0
Dr. M'Crae, Edinburgh	0	5	0
Bruce	0	5	0
Lubbock	0	5	0
Mr. Horsfall and his Pupils:—			
Mr. Horsfall, Wakefield, Yorkshire	1	1	0
W. Rowlandson	0	7	0
E. Horsfall	0	7	0
M. Preston	0	7	0
Mr R. W. Milner, pupil at Messrs. B. and E. Walker's	0	10	6
Mr. Ross	0	5	0
Per John Latham, Esq. Wigan:—			
Dr. Caunce, Wigan	0	10	0
Pemberton, ditto	0	10	6
Stuart, ditto	0	10	6
Mr. Croft, ditto	0	10	6
Morris, ditto	0	10	6
Rogerson, ditto	0	10	6
Latham, ditto	0	10	6
Hawett, dttto	0	10	6
Fisher, ditto	0	10	6
Rawlinson, ditto	0	10	6
Smith, ditto	0	10	6
Swift, ditto	0	10	6
Burdon, ditto	0	10	6
Glassbrook, ditto	0	10	6
H. Jephson, Esq. Leamington	1	1	0
Worcestershire Medical and Surgical Society, per Dr. Hastings	10	10	0
R. J. Peck, Esq. Newmarket	0	12	0
Dr. Armstrong, London	1	1	0
W. Gaitskill, Esq. Paradise-str. Rotherhithe	1	0	0
George Dermott, Esq. Pulteney-street	1	0	0
J. C.	0	2	6
— Hugo, Esq. Crediton, Devon	0	10	0
— Battishall, Esq. Springton, ditto	0	10	0
G. W. Wood, jun. Esq. Somers-Billinghurst, Sussex	0	5	0
Edward M'Dowell, Esq. Dublin	1	0	0
Dr. Barlow, Bath	1	0	0
William Mee, Esq. East Retford	1	0	0
G. R. Skene, Esq. Jermyn-street	1	1	0
Per T. Waterhouse, Esq:—			
Arnold J. Knight, M.D, Sheffield	1	1	0
Corden Thomas, M.D. ditto	1	1	0
Charles Timm, M.D. ditto	1	1	0
Mr. Stainforth, sen. ditto	1	1	0
Waterhouse, ditto	1	1	0
William Jackson, ditto	0	10	6
Overard, ditto	0	10	6
Reedal, ditto	0	10	6
Ray, ditto	0	10	6
Turton, ditto	0	10	6
Holland, ditto	0	10	6
Wright	0	10	6
Carr, ditto	0	10	6
Eadon, ditto	0	10	6
Pupils.			
Mr. Henry Thomas, ditto	0	5	0
John Risdon Bennett, ditto	0	5	0
Green, ditto	0	5	0
Knowlton Wilson, ditto	0	5	0
Per — Braithwaite, Esq.			
Dr. Bleek Lye, Hereford	1	0	0
Hughes, ditto	0	10	0
Mr. Griffiths, ditto	1	0	0
Beavan, ditto	1	0	0
Cam, ditto	0	10	0
Pateshall, ditto	0	10	0
John Griffiths, ditto	0	10	0
Eyre, ditto	0	10	0
Price, ditto	0	10	0
Braithwaite, ditto	0	10	0
Jennings, student, ditto	0	2	6
Cookesley, student, ditto	0	2	6
—— Lovell, Esq. Sawbridgeworth	0	10	0
J. London, M.D, Pernambuco, Brazils	0	5	0
Dr. Gilby, Wakefield, Yorkshire	0	10	0
—— Dawson, Esq. surgeon, ditto	0	10	0
Dr. C. J. Fox, Margate	1	1	0
—— Shaw, Esq. Worksworth, Derby	0	10	0
—— Cantrell, Esq. ditto	0	5	0
—— Gervis, Esq. Ashburton	0	10	0
The Medical Society at Hexham, per their Secretary Robert Stokoe, Esq.	2	2	0
William Day, Isleworth	1	1	0
Mr. Bryant Donkin, 80, Great Surrey-st.	1	0	0
Jas. Tomlinson, Esq. Maldon, Essex	1	0	0
Messrs. Baker and May, ditto	2	0	0
Mr. Thomas Salt, pupil to ditto	0	5	0
Mr. Henry Baker, ditto	0	5	0
George King, Esq. Bath	0	10	0
—— Bryant, Esq. 50, Edgware-road	0	10	0
Pupils at the Borough Schools, by Mr. E. Halse:—			
Mr. E. Halse	0	10	0
William Hewitt	0	5	0
A. Thorpe	0	5	0
John Hazell	0	5	0
J. M. Lister	0	10	0
J. Edinborough	0	10	0
A. Edinborough	0	10	0
J. Fry	0	10	0
Per John Hewson, Esq. Lincoln:—			
Mr. R. Bonsfield, Surgeon, Lincoln	0	5	0
F. P. Charlsworth, M.D. ditto	1	0	0
Mr. F. E. Frankylin ditto	0	5	0
E. B. Drury, (not med.) ditto	0	5	0
Sulton Harvey ditto	0	10	6
John Hewson ditto	0	10	6
T. Fawset, pupil of ditto	0	5	0
F. A. Sayles, dentist ditto	0	5	0
Tuke (not medical) ditto	0	5	0
The Publisher of THE LANCET	0	10	0

WE must claim a further indulgence from our Correspondents.

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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture VIII.

Of the Softer Parts in connexion with the Pelvis, and the Effects that are produced on them by the Passage of the Child.

With the pelvis, Gentlemen, various softer parts are connected, some of them lying externally, others contained within; and these softer parts we purpose now to consider, so far, and so far only, as they are interesting to the accoucheur, commencing with an organ of no small importance, I mean the

Gravid Uterus.—If we examine the uterus while yet unimpregnated, we find its bulk in different women, like that of the fœtus, various,—large however, on an average, as a small pear; and it lies in the middle of the pelvis with its fundus forwards, its mouth backwards, its anterior surface directed somewhat downwards, and its posterior surface above. But making our observations on the womb, in the end of pregnancy, when it becomes a most important study, we find it very bulky, as large, for example, as the adult head, or larger, as the fine casts now before you so well demonstrate. When thus enlarged by gestation, the uterus occupies about two-thirds of the abdominal cavity, (observe the casts,) still placed in the same bearings as the unimpregnated womb, the mouth of it lying downwards and backwards toward the sacrum, the fundus pushing forward beyond the xiphoid cartilage, the posterior surface still facing somewhat upwards, the anterior surface below. The abdominal muscles are spread out before it, the intestines lodge above and behind it, and the bladder, which contracting retires behind the symphysis pubis, when dilated becomes interposed between the abdominal coverings and this viscus, where, in labour, its form and fluctuation may sometimes be distinctly felt. All this, never to be forgotten by the accoucheur, is finely demonstrated in the casts now exhibited.

On laying open the uterus, we find within its cavity the egg of the human species, consisting of a full-grown fœtus, an aquatic animal, immersed in water therefore, and contained in the membranous bag which I here show you. Adhering to the bag or cyst is a large fleshy mass, about twice the size of a small breast; and this connected with the fœtus by means of the umbilical chord, adheres by its convex lobular surface to the upper part of the uterine cavity, and constitutes that part so important to the accoucheur, I mean the *placenta*. But to illustrate: you see, Gentlemen, the placenta in the preparation I now show you; it is small in this specimen, for in different ova it varies considerably. The preparation here exhibited, demonstrates the ovum in the full-grown uterus, and in this preparation you may observe the membranous cyst, the placenta, the fœtus, the chord, and the position in which the fœtus ordinarily lies. In the first stage of our existence, we are placed with the head depending, this being the ordinary position of the fœtus, as that of the adult is converse.

Bladder.—Closely connected with the *vagina* and *uterus*, and not to be overlooked by the accoucheur, is the *bladder*, a musculo-membranous receptacle of ever-varying capacity. Contracted, it contains scarcely a *drachm* of urine; dilated to its full dimensions under urinary obstruction, it becomes capable of containing from *one* to *two gallons*, not, however, without risk of laceration. With the bulk of the bladder, its *situation* is of importance; when dilated, it lodges extensively between the abdominal coverings and the uterus, as before hinted; when contracted, it occupies but a small space, and then lies concealed, in a great measure, behind the *symphysis* in front; much exposed to pressure of course, during the transmission of the head, more especially when the pelvis is small, or the cranium is unusually bulky.

The situation of the bladder in its contracted state, is well demonstrated in the preparation now in my hand, exhibiting the softer parts of the pelvis in a dried state. By means of it you may learn the position which the parts take when a woman is erect; the symphysis pubis lying downwards, the sacrum above the womb intermediately, and the bladder lodging between the womb and symphysis pubis, liable to be pressed during the passage of the head through the pelvis.

Ureters.—Into the neck of the bladder, on the back part, the ureters open towards the lower part of it, and the sides; in a situation best learnt from your own dissections. The urethra, arising near the lower point of the bladder in front, in length about two inches, is lying on the back part of the symphysis, where it may be readily felt, and traced by the finger,—its roundness and firmness reminding one of a piece of lay-cord; a comparison which I use, because, though coarse, it may be readily understood. At the point or key of the pubic arch, the orifice of the urethra opens, of various capacity: when large, it may admit the little finger; when contracted, it may exclude a sound; when of ordinary dimensions, it readily receives the catheter. To find the orifice, is no difficult task; placing the finger as I now do, in the arch of the pubes, and stirring it a little, you may discover the aperture there; though not always with equal facility, yet with the same certainty, as with closed eyes you might by the touch detect an aperture in a piece of moistened skin. Of course, during the transmission of the child through the pelvis, especially if the head be large, or the pelvis small, the urethra is more or less subjected to compression; it may be closed, therefore, or it may be pushed out of its place and distorted; or under contusion, it may become inflamed, swelled, or spasmodically contracted; nor are these and other effects of compression to be forgotten by the accoucheur.

Rectum.—On the surface of the pelvis, behind, lies a musculo-membranous receptacle of very different form from the preceding, not without its obstetric interest, —I mean the *rectum*, or lower end of the great intestine, which rests upon the sacrum, one extremity of it opening at the anus, the other into the *sigmoid flexure* of the *colon*, to the left of the sacrum. Lying in the hollow of this bone, the rectum is placed a little obliquely, as this preparation shows,—a nicety of anatomy, to be remembered by the surgeon as well as the accoucheur, when examination by the bougie, or any other instrument, becomes requisite. Of the rectum, the lower portion is formed merely by the mucous membrane, the muscular fibres, and a little cellular web; the upper half, or I may say, two-thirds above, being covered by peritoneum in front, and in front only, for the back part lies directly in the hollow of the sacrum, a cellular web being alone interposed there. The superior extremity of the rectum opens into the sigmoid flexure of the colon; the inferior, opening at the anus, is surrounded by a broad muscle, called the *sphincter*, of various breadth, thickness, and strength, in different bodies.—During a mismanaged labour, the sphincter ani is sometimes torn, the retentive power of the gut being lost, at least for a time, not without great discomfort and vexation of the patient, who is excluded by this infirmity from the social circle.

Vagina.—In the middle of the pelvis, and in the course of the axis (demonstrated, as you may remember, in a former lecture) the vagina of the woman is situated, a part which next deserves our attention. Originating all round from the neck of the womb, just above the mouth, which projects into it, the vagina terminates at its inferior extremity upon the genital fissure or *vulva.* This canal, from three to five inches or more in length, though various in capacity, may be capable of containing, on an average, two or three fluid ounces, being well represented in the preparation which I now send round, correspondent with the male organ, in relation to which it was evidently constructed.

Placed in the axis of the pelvis, we find the vagina lies with its back on the rectum, its front on the bladder and the urethra, the upper portion being on the neck of the bladder, and the lower upon the urethra; so that laceration, or slough of the vagina, may lay open either the bladder or the rectum, as these preparations show.

External Organs.—In connexion with the pelvis, we meet also with the external organs, as they are called, of which, in relation to delivery, we may observe, that they constitute a sort of *fissure*, properly enough denominated the *genital*; the sides of which are formed by doublings of skin of various bulk, containing more or less adipose matter, and forming what are called the labia pudendi. Above the fissure, the mons veneris rises, an eminence covered with capillary growth, a protection during the intercourse; below, between the fleshy swelling of the lower portion of the nates, the perineum lies, extending from the genital fissure to the extremity of the rectum, consisting externally of the common integuments, and of the posterior portion of the vagina within, with a little interposed cellular web, and perhaps a few of the sphincter fibres; the whole structure spreading by continuity to the internal and adjacent parts, and forming the front of the rectum, a part of the intestine which sometimes stretches forth when the head emerges, and gives for the time additional extent to this important structure. Into the composition of the vulva other parts are entering, but the knowledge of these alone, the labia pudendi, the mons veneris, and the perineum, is necessary to the comprehension and management of the close of the delivery.

Blood-vessels.—In the pelvis, further, and connected with the softer parts, we meet with blood-vessels, not to be passed in total silence, consisting of the *internal* and *external iliacs.* The external veins and arteries lying upon the sides of the false pelvis, beneath the outer margins of the psoæ muscles, while the internal iliacs, spreading over a wider surface, are deposited like my fingers on the sacro-iliac synchondrosis, in the vicinity of which their pulsations may be sometimes felt.

Absorbents and Glands.—Accompanying the blood-vessels, as is usual, we have lymphatics and their glands, and there are some *lymphatics* with their conglobates accompanying the external iliac, and others the internal system of vessels. Into a minute consideration of the pelvic lymphatics, I am not prepared to enter, for they are not of much obstetric importance. I may observe, however, that on the loins and the back of the vagina, glands are seated, which, swelling sometimes, may become as large as the pullet's egg, though rarely obstructing parturition.

Nerves.—In your obstetric studies, the pelvic nerves are not to be forgotten; the *anterior crural*, the *great sciatic*, and the *obturator*, being of capital importance. The anterior crural nerve arising from the first, second, third, and fourth lumbar, (I speak from recollection,) lodging as it passes through the true pelvis under the outer edge of the *psoas muscle* on either side, preserved from direct uterine pressure by the interposition of this muscle, in conjunction with the fleshy mass, is, however, obnoxious to compression, when the womb is large and ponderous. Originating from the second, third, and fourth lumbar, the trunk of the obturator nerve is found in the sides of the true pelvis, lying, as it were, on the denuded bone, perforating the upper and posterior portion of the obturator ligament, and when the head is large, the pelvis small, or instruments are used, it is susceptible of much injury, as this apparatus shows. The branches of the great sciatic trunk, formed ultimately by coalition of the lower lumbar and the upper sacral nerves, are situated principally in the region of the synchondrosis; during the passage of the cranium, when room is deficient, these origins of the nerves lying on the sacro-iliac synchondrosis, must be more or less exposed to the compression here demonstrated from instruments or the head.

Muscles.—Muscles there are in the pelvis too, which, as well as the nervous system, require a notice from the obstetric student,—the *psoæ*, the *iliaci*, the *obturatores*, the *internal pyriformes*, the *levatores ani*, being the principal. Into the anatomy of these muscles, however, I forbear to enter, as I am not prepared with an opportunity of demonstrating them in the recent subject, and a mere verbal description would be dry and unavailing: to my distinguished and able colleague, therefore, Mr. Bransby Cooper, I must refer you for a full demonstration of these parts; and I advise you, by all means, in concluding your anatomical studies, to make them the subject of particular notice, as you will find the knowledge of them not without its interest to the surgeon, and still more important to the scientific accoucheur.

Cellular Web.—Connecting these parts, and lying internally, we have a cellular tissue, which has its claim on your attention, as it invests those parts not covered by peritoneum, and sometimes becomes the seat of inflammation, and more rarely of a fatal suppuration. To this I may add, that by the peritoneum, the pelvic viscera are partially invested, the membrane detaching itself from the abdominal muscles below, covering the body of the urinary bladder posteriorly, lining the upper part of the uterus in front, spreading over the whole of the womb, and perhaps two-thirds of the vagina posteriorly, reflecting afterwards, so as to double upon itself, and extend over the rectum in front, and generally over the back of the pelvis. Under this distribution, therefore, in the human body, the whole of the cervix vesicæ, with the front of the body, the whole of the vagina in front, with the lower portion of the uterus, a small portion of the vagina behind, and the whole corresponding portion of the rectum below, together with the whole posterior part of this organ where it rests upon the sacrum, receives no investment from this abdominal membrane, these surfaces being clothed solely by a cellular web, subject to inflammation and suppuration, as before stated. Before, Gentlemen, we quit this subject altogether, there are a few other points of anatomy on which it may not be amiss to remark.

From the front of the uterus, at the extremities of the curve which bounds the fundus, the round ligaments originate, passing downwards and forwards, to issue at the abdominal rings, externally to which, beneath the common integuments, they terminate. Small in the unimpregnated genitals, they become developed by gestation, lengthening, spreading, and exhibiting the marks of muscularity. Between the womb and the pelvis laterally, the broad ligaments are interposed, formed by the extension of the peritoneal covering of the uterus (anteriorly and behind) from the sides of the womb to the sides of the pelvis. Posterior to these ligaments it is that the ovaries are lodging, the penetralia of the human species, while the Fallopian tubes, which convey the eggs from this mysterious adytum to the uterus, are stretching along the upper edge of the broad ligament. The uterus, enlarged in the latter months, is pushing between the folds of these ligaments, which, rising with its fundus, spread over the womb laterally, in front and behind, in consequence of which, the tubes are found to take their place upon the sides, along which they lie, the ovaries also being scarcely detached from the contact of the uterus. The cervix of the bladder is spread over the front and upper portion of the vagina, cellular web alone being interposed; so that if an examination be required in front, it may be easily accomplished by laying the finger in front on the upper portion of the vagina.

With this explanation I will send you round the illustrative preparations. That which I here exhibit, consists of one half of the pelvis of a child, and shows many of the viscera *in situ*. The sacrum, the symphysis pubis, the bladder, the vagina, the rectum, and parts connected, may all be seen, the whole forming a preparation which, if you mean to be obstetric practitioners, I should recommend you to make for yourselves, as I have found its use in my own practice. Here is another, a very useful preparation too, containing all the viscera of the pelvis, important to the accoucheur. You have the genital fissure and all its parts; the bladder, with its canals, the uterus, the vagina, the broad ligament, the round ligaments, the ovaries, the rectum. The distribution of the peritoneum is also well enough shown in it, as well as that long loose cellular web, which has such a propensity to inflammation. The preparation here exhibited, shows the various nerves of the pelvis. Here, likewise, is a specimen of the adult vagina.

When parturition occurs, effects are more or less liable to be produced in the various parts which I have been enumerating, and it may be right, before we dismiss the consideration of the softer structures, that we should enumerate and explain to you some of those effects which are the most important. When delivery occurs, there is an extensive dilatation of these parts: the *os uteri*, when contracted, will scarcely admit the catheter, but when dilated, it becomes so widely expanded, as to allow the passage of the head, and this too with facility. The *vagina*, as seen in this preparation, small in its capacity, relaxes itself gently and softly under the pressure of the cranium, so as to sustain the transmission without injury, while a further softening prepares the genital fissure in such manner as to fit it for the emersion of the head. You may set down, therefore, among the effects of parturition, the softening and relaxation of the genitals, the expansion of the os uteri, the opening of the vagina, the dilatation of the genital fissure, not to mention the yielding of the *levatores ani*; for the vagina passing through this muscle, of course it must yield when the head passes.

Where the parts are yielding as they ought to be, and where the first impregnation is effected at an early age, as nature intended, contusions and lacerations are rarely found to occur; but if it so happen from the customs observed in society, or from any other cause, that the first impregnation is too long delayed, then such rigidity may subsist, that, if the head be large, the pelvis small, the efforts vehement, or the accoucheur officious, lacerations and contusions of the most formidable kind may be produced. Sometimes the body of the uterus, more frequently the neck, is torn. Sometimes we have lacerations of the vagina, or lacerations of the perineum, or lacerations of the back part of the cervix of the bladder, laying this part open into the vagina in a way you may readily conceive, from observing the situation of the bladder with respect to the vagina, in the dried preparation already circulated. These lacerations, as observed before, may be produced in various ways:—by the needless introduction of a rude and ignorant hand, by the officious and rough insertion of the lever or the forceps, or, when these instruments have been already introduced, by the too rapid abstraction of the head. The head is secured, the womb is acting, cheerily the accoucheur advances with the labouring, comforting himself with the expectation of a speedy emersion of the child; when, in evil moment, forgetful of the perineum, he ruptures it from end to end, and cripples his patient for the remainder of her days. Spontaneously, or without much interference on the part of the practitioner, lacerations of the genitals may occur; the parts are rigid, the pains are vehement, the practitioner is absent, or the woman starting from her position and losing his protection, the perineum yields, and suddenly the child's head bursts into the world. Against this accident you should always be prepared; but in candour it must be confessed, that laceration may occur, when little blame can be attached to the accoucheur. Add to this, that the back part of the neck of the bladder may be easily torn, in a way which a little attention on your part may readily prevent. Suppose, for example, the bladder to be charged with urine to the amount of one or two pints—suppose, further, that the child's head passing the pelvis and bearing on the symphysis pubis, divides the bladder into two parts or chambers, one portion lying above the brim, the other portion below, before and beneath the head, in the position of my handkerchief, so that it receives during transmission the full pressure of the cranium; under these circumstances, should the fœtus descend rapidly while the bladder is loaded, disruption of the cervix will pretty certainly occur.

During parturition, it happens sometimes that inflammations and suppurations of all the viscera within the pelvis are produced. When the pelvis is small, the head large, and the labour difficult, all the pelvic viscera are liable to be contused, the vagina especially. Indeed, the violence of labour considered, it really appears surprising, that inflammation of these viscera does not more frequently occur; but the Creator has wisely adapted those parts to the force they are destined to sustain. The neck of the bladder, however, with the urethra, the rectum, and the parts adjacent, are all obnoxious to inflammation, to which the cellular web, already mentioned, is particularly exposed, matter sometimes accumulating in consequence, to the amount of six or eight ounces. A frequent pulse, a foul tongue, a heated surface, a general irritability of the system, a tenderness of the parts in the vicinity of the symphysis felt, on compression, or from jarring the viscera, by striking or giving concussion to the pelvis; these are the leading characteristics by which their condition may be known. Where matter is collected, *hectic* occurs: you may have shiverings, sweatings, vomitings, purgings, wastings, and the patient may be carried off in the course of a few days; or if she be of more vigorous constitution, and in a purer atmosphere, the abscess may open and discharge its contents either into the rectum, vagina, or, perhaps, the bladder itself. In one of the last cases of suppuration brought under my notice, the patient recovering, a good deal of matter came away, apparently from the urethra, along with the urine, and I have a strong persuasion that, in this instance, the pus and urine were mingled in the cavity of the bladder, into which the abscess was presumed to open.

These inflammations and suppurations may sometimes be the result of your mismanagement, and, of course, must fix no pleasing reflections on the mind. If you have been examining the woman too often; if you have been sillily thrusting your hand into the vagina when there was no need; if you have been pragmatically using the lever or the forceps, and if it so happen that the woman be of phlogistic habit, though you use but little force you may contuse, you may lacerate, you may destroy: and sometimes, without any blame to be attached to the accoucheur, when the head is large and the pelvis small, you have laceration, and all the consequence of compression, more especially if the delivery have been too long delayed—not to add that in the anomalies of labour, notwithstanding the best management, these accidents may now and then occur.

You will sometimes find, (nor must this effect of labour be forgotten,) that under the pressure of the head, *sloughs* of the softer parts will take place, and of the more extensive kind too. The inner surface of the perineum may slough, or the labia pudendi, on either side; and what is more to be dreaded, the sloughs may occur in the upper part of the vagina, by which the canal may be laid open into the rectum on the one hand, or into the bladder on the other.

By a rude midwifery, those sloughs may be occasioned. If the accoucheur have needlessly thrust his hand into the vagina, if he have been *foolishly*, (for that is the proper term,) foolishly distrusting the natural efforts, and if, reversing the motto, he have been drawing down instrumentally, *vi, non arte*, instead of *arte, non vi*, he may bruise the parts, so as to produce the sloughs. Sloughs, too, no doubt, may be occasioned by the spontaneous pressure of the child's head; and I have been called to such cases, where little violence has been used. The child's head may be pushed into the cavity of the pelvis, remaining impacted there, so as neither to advance nor recede, this constituting what is called the *incarceration* of the head. When the head is incarcerated, if the pelvis be somewhat large, or the cranium rather small, it sometimes comes away spontaneously; but if the pelvis be small, and the head be large, the cranium may become firmly impacted between the front and back of the pelvis, and sloughs may be the consequence of long continued and forcible compression. To prevent these accidents, when the head is incarcerated you ought to attend to the state of the *pulse*; and if you find the pulse rising, and approaching 130 in the minute, you have reason to suppose that mischief is doing, and that a destructive pressure may exist; while a continuance of the pulse at the natural level, is a pretty certain proof that the parts are not subjected to dangerous compression. When, too, the head is incarcerated, you may make your observations on the degree of pressure; and if the urine flow, and the urethra admit the catheter, and the finger may be passed between the cranium and the symphysis pubis, the probability of slough is small; but the danger of slough is imminent, if the fingers and the catheter cannot be passed up, and the flow of the urine along the urethra be suppressed. In general, when the head is impacted in the pelvis, neither advancing nor receding, it is unwise to let it remain there more than five or six hours; but if the compression is slight, and the pulse is infrequent, this term may be prolonged, and it must be abbreviated if the converse symptoms are observed.

There is yet one other mode in which sloughs may be occasioned, and that is in consequence of the detention of the head above the brim. When the pelvis is contracted, and the head is large, and the pains are vehement, the cranium detained above the brim is forcibly pushed upon the bones by every effort of the uterus, and in consequence of those repeated descents upon the bones, at last such bruising takes place as ocasions sloughs of the bladder and higher parts of the rectum. But in your patients these sloughs will rarely occur, if you adhere to the general rule already recited, *ad tædium usque.* If there be no dangerous symptoms, and the woman have not been in labour for twenty four hours after the discharge of the liquor, try the natural powers; if dangerous symptoms appear, referrible to the protraction of the delivery, or if the woman have been in strong labour for twenty-four hours after the discharge of the liquor, the head making no advances, try the lever or the forceps; and if the lever and forceps fail, and dangerous symptoms demand delivery; or if the pains have continued without effect for forty-eight hours after the amnial gush, you may have recourse to the perforator. Above all other symptoms, mark the pulse, counting it by the watch with your nicest care; so long as the pulse between the pains remains under a hundred, there is no danger of sloughing; and whenever the pulse mounts above this level, approaching 130, you are to be vigilantly on your guard.

So then these sloughs may be occasioned, not merely by thrusting up the hand, or by thrusting up obstetric instruments rudely, or by suffering the head to remain incarcerated among the bones of the pelvis, but, moreover, by allowing the head, when detained above the brim, to be too frequently and forcibly pushed down upon the bones; and knowing in this manner the more frequent causes of those sloughings, you will readily know, also, the most probable means of preventing them.

Among the effects produced on the softer parts under parturition, when labour commences, a frequent desire to pass water deserves your notice, resulting, I suppose, in part, from *pressure* of the child's head on the *neck* of the *bladder*, and partly from *irritation.* In more laborious labours too, you sometimes find that the bladder is shut, so that neither the urine nor the catheter can be passed, this closure being occasioned, partly by the *pressure* of the child's head on the urethra, and in part, by its becoming displaced and distorted. Now, accumulation in the bladder is always to be deprecated; by it, lacerations of the body or neck of the organ, may be produced in the manner already explained. When the urine is collected, it is not always in our power to introduce the catheter, even though the head be a little repelled; in order, therefore, to prevent the accumulation, as much as may be, the patient should be directed to pass the water while she retains the power; to drink but sparingly, and, in preference, to use those warmer drinks which tend to increase perspiration.

Incontinence of urine is sometimes observed, arising from various causes; by much pressure of the cervix of the bladder it may be produced, independently of dissolved continuity, in consequence of mere weakness, the retentive powers returning spontaneously in the slighter cases in the course of two or three weeks. When the injury is more serious, the debility remaining for weeks or months afterwards, perhaps for years, it is said that a *blister* on the lower part of the back will do good, and this may be tried. Incontinence of urine, too, results occasionally from *rupture* of the neck of the bladder, torn open during delivery, in the way before demonstrated. In cases of this kind, after the delivery, let a catheter be inserted into the bladder, and kept there; and let a *sheep's bladder*, or any other contrivance you please, be connected with the under extremity of the catheter, so as to receive the urine. Keep the parts quiet, improve as much as may be the general health of the patient, and you will now and then have the satisfaction to find, that these rents which were large enough to admit two or three of the fingers, become closed up.

A woman in this neighbourhood having been delivered with much force by the use of the lever, I found, on examining her with great care a few days afterwards, that there was a rent in the neck of the bladder, so spacious, that two fingers passed into it without difficulty, and of course no doubt remained as to the nature of the accident. As this case was ushered into a court of judicature, and a subpœna had been served, in order that I might give evidence with greater certainty respecting the state of the parts I instituted another and very careful examination, some few weeks after the former, when I had the satisfaction to find, that under the use of the catheter, and the improvement of the general health, the wound was closed so completely that not even the vestige of a cicatrix was clearly distinguishable; nor must I omit to add, that it was to the skill of my able friend, Mr. Gaitskell, of Rotherhithe, that the cure was to be attributed.

Incontinence of urine may also be produced in consequence of sloughing. A week or two after delivery, there come away from the vagina pieces of membranaceous aspect, and of blackish grey tint, forming in the neck of the bladder smaller or larger apertures, which, when they are capacious, are, I suspect, never closed; for in these cases there is not, as in the former, a mere solution of continuity, but a loss of substance. On the treatment of these sloughy apertures, I may hereafter make a few remarks; but it may not be amiss to observe here, that the way of preventing them, is to prevent the sloughs, by adhering to those rules which have been already prescribed.

When the head passes the pelvis, the nerves may be compressed, more especially if the cranium be large, or the pelvis small, or the lever or the forceps be employed, the trunk of the obturator and the origins of the sciatis being the nerves of the pelvis which are most exposed. Numbness and spasms of the lower limbs occur when the head enters the pelvis; perhaps the patient exclaims, "I've the cramp," and relief may be obtained by friction and compression of the affected part. After parturition, in general but little inconvenience is felt, yet now and then torpor and debility remain for months subsequently, and more rarely the patient is quite lame; but I once had a patient, a hawker, accustomed before delivery to pedestrian exertion, walking 10 or 15 miles daily, who, for some few days after parturition, could scarcely cross her chamber, yet in the course of a few months she recovered in great measure the power of the member. Kosciuskow, the celebrated Polish general, who, I think, fought the last battle for the independence of his unhappy country, sustained a division of the trunk of the sciatic nerve from the thrust of a Russian bayonet, and remained lame for some years afterwards, recovering, however, ultimately, (if I am rightly informed,) the use of the limb, and exhibiting in his own person a striking proof of the restorative power of these parts. When the nerves are injured, therefore, recovery, though tardy, may be expected. If severe cramps are produced by instruments, it is better to lay them aside. Cramps appear to be occasioned by the entrance of the head into the pelvic cavity, and when resulting from pressure, therefore, are prognostics of approaching delivery.

By the bearing of the cranium on the rectum and perineum, tenesmus is produced, an accident worthy of a transient and cautionary remark. Moved by feelings of delicacy, the patient may request her attendant to quit the bed side; but he must beware of being misled by her solicitations. It is when the head is pushing through the outlet that this sensation is most troublesome, and were the accoucheur to quit his post at this moment, the head suddenly emerging when the perineum was unsupported, a dreadful laceration of this part might, perhaps occur.

I shall now send you round a few illustrative preparations. The preparation here exhibited, is of the perineum, lacerated so as to lay the genital fissure and anus into one aperture, probably occasioned by the rude introduction of the hand, or the rapid emersion of the head. The second preparation I show you, is truly awful, for the term is not misapplied. In it you have a tremendous laceration in front of the vagina, and another behind, probably occasioned by attempts to turn the child. How would you feel if any female of your circle, or in whose fate you felt more than a friendly interest, had been treated in this manner? There is such a thing as an obstetric *rack*; and the obstetric rack is formed by ignorance and presumption, and in conjunction with violence, the offspring of the other two. Here is another laceration of the uterus, merely without the vagina. When using the hand or obstetric instruments, let the fear of such preparations as these be always before your eyes. A rupture of the bladder, occasioned by accumulation of the urine I here show you. The accident is rare, but deserves your attention.

When we meet again, I shall proceed to the consideration of the labours.

LECTURES
ON THE
INTELLECTUAL COMPOSITION OF MAN,

Delivered at the London Medical Society by

DR. HASLAM.

Lecture VI.

On the Origin and Nature of the Passions.

It has been attempted in the preceding Lectures to describe the intellectual composition of man, during the long period of his advancement from infancy to mature age; and to point out the circumstances that contribute to the formation of his mind. The connexion of mind with body, in all the stages of human existence, was the position from which we started, and such principle has been undeviatingly maintained throughout the course of these investigations: but it has never been assumed, that mind and body will be mutually and equally progressive. Our observation and experience are opposed to any such conclusion. In a healthy atmosphere, with proper exercise and nutriment, the corporeal frame will vigorously expand from the child to the adult: and deprived of these auxiliaries, the system will be impoverished, and subject to various morbid affections. However ample the intellectual capacities, if their culture be neglected, the subject will be destitute of those rudiments of knowledge, that fit him for the employments of life; and thereby deprived of the means of advancement, and as a moral agent, he will be a disgrace to his species. The ordinary survey of our race will detect abundant instances of puny, deformed, and miserable creatures, possessing the most acute, powerful, and cultivated mind, and the same view will furnish as many examples, where the most perfect bodily symmetry, or gigantic proportions,—where the models of the Apollo Belvidere, or Farnese Hercules, are conjoined with ignorance and stupidity. Before we enter particularly into the examination of the demonstrations of purpose, the force of impressions, and the explosions of feeling, that are termed the passions: before we trace the expressions of desire, the overwhelming shocks of terror, or the bursts of fury; it will facilitate our investigation of this subject, to premise, that if man, as we have described his body and his mind united, were merely an assemblage of perceptions, memory, volition, and thought, superadded to a living system, and wanted the passions common to our species, he would be a passive incumbrance to the earth he inhabits.

A being so constituted, according to the extent of his acquirements, might coldly discuss the subjects of philosophy, morals, and politics; but he could feel no interest in the debate, nor become zealous for superiority. He would be insensible to that "last infirmity of noble minds," ambition; which goads to contention and animates to victory: a conflict, where the search for personal aggrandisement enlarges the sphere of knowledge, and by its diffusion, contributes to benefit mankind; nor could he be inspired to exert those generous energies, that wield eloquence in the cause of freedom. In this state of apathy, the glad tidings of success would fail to delight him, and he would be equally callous to his own misfortunes, and to the miseries of others. This alien to joy and sorrow would likewise be a stranger to the purity of affection: he might feel the carnal distentions of lust, and seek its nearest gratification: but he would be insensible to those refined feelings that constitute love, and which involve the esteem and protection of the source of his enjoyments, and the moral solicitude for the welfare of his offspring: and wanting the prospective anxieties for his children, he could not revert with gratitude and reverence to his parents. Uninfluenced by the passions of love and ambition, he would be exempt from the jealousy and envy they provoke: and if in the craft of his reflections he contrived mischief, he would lack the courage to perform it. It would be useless further to rack the invention to complete this fabrication of the fancy: the supposition is groundless: for man, wherever he is found, discovers himself to be the inseparable compound of living agency, intellect, and passions. His intellect is indispensable for the play of his passions, and his passions are necessary for the advancement of his intellect. Whatever may be the nature of these passions, the operation of which in our own species, the poet has described, the painter represented, and the actor most forcibly embodied: a very slight degree of observation will convince us, that animals, especially of the higher orders, exhibit unequivocal indications, that their minds are actuated by similar feelings, and under various circumstances urged to their expression, according to their different states of wildness and domestication. These passions seem to be proportionate to their physical construction and natural sagacity: and some well-marked displays may be traced in those of an inferior class. Indeed it seems probable, wherever a glimmering of intellect, which implies the adjunct of volition, is combined with animated fibre, that by certain irritations, some degree of excitement and emotion will result. In animals, the organs most intimately connected with life, and with the continuance of the species, are the great sources of their passions. When pressed by hunger, they evince a boldness and ferocity that are terrific; and when impelled by lust, the rage of gratification is equally conspicuous. The stomach and organs of generation, are the copious springs from whence their passions are derived; and when we come to consider the conduct of man under the same requisitions of appetite, and rampant desire of sexual enjoyment, we shall discover the same principles in operation.

In this inquiry, the fair and rational method of proceeding, will be to trace the rise and progress of the passions, in the same manner that we have investigated the acquirements of the intellect: which is by considering the state of the infant, and observing the circumstances that contribute to their formation. In the next place to demonstrate, according to the nature of the human race, that these passions are the necessary contingents on our intellectual acquirements: and, finally, to exhibit the passions resulting from that mental elaboration, which has been termed thought or reflection. At the birth of the infant, and for some time subsequent, it cannot be said to possess any passions: but we must recollect that it is alive, and endowed with nerves, the instruments of feeling, and therefore may be the subject of pain. It is exposed to various sources of irrritation, both external and internal, and sends forth its cries, which may be interpreted the signals of impatience and distress:—yet these do not amount to the display of any definite passion, which, according to my own views, must originate from intelligence. Passion is the display of intelligent feeling, the outward and visible sign of the internal mental impression. We must, therefore, discriminate between those bodily irritations, which, in the ordinary phrase, render the child cross and fractious; such as arise from tormina of the intestines, eruptive fevers, and difficult dentition: these, with many others, are purely corporeal affections, and ought to be distinguished from the circumstances that evidently excite anger, and impress fear; and presume a knowledge of the object or action that produced the emotion. Passion implies, at least, the previous acquirement of perception of its associate memory, and of a certain degree of volition. Anger is, however, one of the passions of earliest development, and may be excited by a variety of circumstances, after these attainments have been acquired. Every mother, who has afforded nutriment to her infant, must have witnessed the display of impatience with which it seeks her breast, on waking, under the calls of appetite; and of its irascible demonstrations, until it is applied to the nipple, and then becomes impetuous if it be prematurely withdrawn. The same exhibitions of rage are also manifested, if it be attempted to wrest from its grasp any object or toy that it holds, and with which it is delighted. Pleasure and pain appear to be rather corporeal feelings that are evinced by the indications of smiles or screams, than passions properly so termed: especially as the infant is ignorant of their sources: and it requires a more considerable advancement, before these feelings can be elevated to joy or depressed to sorrow. The nervous fabric of the infant is likewise susceptible of the violent agitations that impress terror. When the eyes can competently discern certain objects, and the features of particular persons create alarm, and the same dread is excited by harsh sounds and loud intonations: yet these cannot be said to amount to fear, which implies some knowledge of the cause producing the emotion, which is the apprehension of danger. It is not until the child has made some progress in language, that any considerable number of actual passions are matured:—until the exercise of speech, they may be considered the *ignes fatui* of the soul, that play on the countenance, or start forth in the bursts of pantomimic gesture. The incipient assumptions of pride, that iniquitous comparison with others, in which we uniformly attribute the superiority to ourselves; and jealousy, the sting which our own unworthiness inflicts on the preference of greater merit, are likewise among the first unfoldings of our early years. Such is the complexity of these associates of our nature, these shadows that adhere to our intellectual light: so powerful are the intensities of these passions, so multiplied their hues,—so variously are they blended, and so loosely denominated, that by attenuation they appear as virtues, and become crimes by compression. To number and arrange the catalogue is impossible on the present occasion: they resemble the vices that perplexed the Sybil:—

> "Non mihi si linguæ centum sint, oraque centum,
> Ferrea vox, omnes scelerum comprendere formas,
> Omnia pænarum percurrere nomina possim."—ÆN. vi. 625.

We must now proceed to that season of human life, when the animal frame undergoes important changes, and which induce certain mental phenomena that are equally interesting. This is the period of puberty in both sexes; and it is equally marked by the exuberance, vigour, and expansion of the genital organs, and by appropriate desires, feelings, and passions. It is evident that these mental exhibitions are the necessary and contingent results of the organic development; as they were unknown before the procreative apparatus was awakened to its sense of function; and likewise, from our experience, that when the vigour of the organs is extinguished, the attendant passions melt away, "and leave not a rack behind." In some subjects the dawn of these feelings and propensities is premature, and with others there remains a lengthened twilight of pruriency, after the day of effective manhood has declined. When the sexes arrive at a state of ripeness, that enables them to co-operate for the propagation of the species, the toys of childhood are abandoned, and they view with disdain the puerile amusements by which they were formerly delighted. They assume the manner and costume of maturity, and feel an independence that rejects the restraints by which they had been governed, and too frequently revolt from their obedience to the counsel of their elders. Filial fondness and affection, is commuted for mere respect, and esteem for the parent. They loosen the ties by which they are confined, and become impatient of the hand that trained them: they are indignant at being considered espaliers, and claim the individuality of standards. When the genital organs, that hitherto had been comparatively dormant, become prolific by a new secretion, the other senses contribute their powerful aid, and lend a separate grace to augment the fascination. The eye not only estimates the symmetry of form, and the charms of feature, but officiates as the interpreter of mutual wishes. The ear imbibes the subtile contagion of flattery and devotion, and the magic influence of the touch communicates a thrill that penetrates to the heart, and too frequently subverts both precept and example. This sexual impulse, when properly directed, gives birth to sentiments of delicacy, attachment and esteem, of generosity and honour: but the high appreciation of the jewel that we wish exclusively to wear, when viewed with fondness and pretension by another, inflames us with jealousy, and induces the hostility and suspicion that rivalry promotes: and if the competitor be preferred, we pine under the corrosions of envy, or sink into melancholy and despair. However we may attempt to disguise the passions of love by a protracted prelude, and respectful advances:—by presuming the difficulties of the enterprise, and timidly surmounting the obstacles that imagination oftener creates, than female severity interposes; on an accurate analysis, we shall be aware that these are the delusions that enhance the ultimate surrender, and exalt the enjoyment; for the feeling is intrinsically prurient, and tends to sensuality, however masked by sentiment, polished by eloquence, or restrained by decorum.

"Heu vatum ignaræ mentes! quid vota furentem,
Quid Delubra juvant? est mollis flamma medullas
Interea, et tacitum vivit sub pectore vulnus."

This passion emanates from the corporeal organs, it is maintained during their vigour, and when their energies decline, it is extinguished.

It does not accord with my views on the present occasion, to institute any general inquiries into the nature of the stomach and its diseases: but as connected with human feeling and passion, it is impossible to pass over the affections of mind that are induced by the opposite states of hunger and repletion. Every one is fully aware of the habitude, mental apathy, and stupidity that result from excessive loading of the stomach; and of the inactivity, torpor, and somnolency that ensue. Even the circumscribed intellect of animals is obscured, when they are fattened to excess; and the dainties they then constitute, by overcharging the stomach, will produce a similar dulness of the human faculties. Under certain states of insanity, the patient is averse to food; and sometimes his delusions influence him to starve himself. These are the symptoms of disease. But we have many well attested instances, of persons in health, of mild and amiable dispositions, and belonging to the most civilised communities, who, under the pressure of hunger, have proceeded to devour their comrades, with all the ferocity and enjoyment of savages; where friendship or kindred interposed no barriers to the feast, who have quaffed the warm blood as it flowed from the victim, and regaled on his palpitating members.

"—— atro cum membra fluentia tabo
Manderet, et tepidi tremerent sub dentibus artus."

In these instances we observe the feelings, desires, emotions, and passions that proceed from the organs of generation; the agents by which the species is continued; which are endowed with abundant nerves of exquisite sensation, and the functions of which transport us to a higher æther; and likewise, from the stomach, the great emporium of animal life and nutrition, and remaining source of gratification, when the erotic propensities have subsided. These facts sufficiently demonstrate the intimate alliance, reciprocal interchanges and mutual dependencies that are established between corporeal offices, and the intellectual phenomena that constitute mind;—a conjunction, that no human analysis can separate, and the necessity for which is equally obvious. Could man have continued his existence without the sense of hunger? which, in more courteous phraseology, we term the blessing of appetite; and without the introduction of food into his stomach, he would not have laboured:—his industrious habits, both of mind and body, would be superfluous toil, and he would have passed his life in indolence; not being subject to the requisitions of aliment, he would be a stranger to the gratifications of feeding; the generous hospitalities of life would be unknown, nor could we have felt the sublimest of human delights, in the dispensations of charity, by administering to the wants of others.

As our passions have been shown to be the necessary contingents of our intelligence, and likewise, that some of them are especially promoted by the conditions of important bodily organs, it will be advantageous, both in a physiological and practical point of view, to note the effects which the operations of these passions produce on the corporeal system; in order to demonstrate their reciprocal actions, and thereby confirm the inseparable conjunction of body and of mind. A sudden burst of indignation, independently of surcharging the head with blood, will frequently produce pain in the region of the stomach, with severe colic, constriction of the biliary ducts, obstinate constipation, and in some instances, jaundice. A violent paroxysm of rage has been known to occasion hemiplegia, apoplexy, and immediate death. The unexpected occurrence of good fortune, produces that excitement and elevation of mental feeling that is denominated joy: sometimes the surprise is so considerable and overwhelming, that the person for a time loses his consciousness, or in other words, has an attack of syncope or faints, and on his restoration, is observed to possess a preternatural activity of mind. Of course these symptoms will vary according to the susceptibility of the person, and the intensity of the emotion; and there are instances recorded of sudden death, apoplectic seizure, phrenitis, and of insanity, resulting from the extreme transports of this passion. In a moderate degree the countenance becomes slightly flushed, the eyes sparkle and assume a peculiar animation, the pulse is quickened and the appetite is increased. There is no difficulty in conceiving the direct operation of a mental stimulus, because there are many circumstances that obviously produce the same effect. We are all aware that wine, alcohol, and opium, administered to the stomach, will, through its medium, confer delightful sensations, excite the mind, and elevate the spirits: in a like manner, the intelligence that conveys to us the advancement of our interests and fortune, the health and prosperity of those who are dear to us, or the victory that has been obtained over our enemies, inspires us with the feeling that is denominated joy. It is true, that hitherto poets and romancers, have been exclusively occupied in the description of these feelings, passions or emotions: but there is still ample space for the labours of the physiologist. Our passions admit of various gradations, and there exists in our language a vast vocabulary that depicts their shades, and characterises their progression: from the incipient dawn to the meridian intensity. To describe the progress of excitement, or elevation of mind:—at first the person is lively, cheerful, gay, glad, vivacious, pleasant, mirthful, jocund, happy, until he becomes elated with joy. But in the augment and succession of these excitements, whether produced immediately by mental operation, or through the medium of fermented materials; he assumes a levity of manner, becomes volatile and frolicsome: his conversation is flighty and extravagant, ultimately he feels transported with ecstacy, and elevated to rapture; while his more temperate associates perceive him to be in the state of actual delirium.

If the mind, the aggregate of perception, memory, will, reason, and thought, with the associated passions ingrafted on a living system, can be directly stimulated by certain excitements: there are other affections, not thoroughly understood, that appear to operate in a manner entirely opposite. Of these, fear may be taken as an instance, the impression of which produces a sudden prostration both of the corporeal and mental energies. There is a feeling as if the blood forsook the extremities, and retreated on the heart; the countenance becomes pale, and the uncovered parts of the body are colder to the touch: the body is likewise motionless, and cannot be urged forward; tremor ensues, the knees shake, and there is a general instability of the frame. In children, the voluntary power and control that secure the sphincters become relaxed, and their contents are evacuated: and if we are not misinformed, the same effect has occasionally been noticed among adults, in situations of imminent peril. The degrees of fear are manifold: and the corporeal and mental effects vary according to its intensity. The circumspection, listening caution, and hesitation, that demonstrate the apprehension of danger, excite the mind to different expedients and contrivances, to escape from the impending evil: the faculties are quickened by the consciousness that disaster is approaching:—but the shock of fear, when the alarm is sudden, and the exciting object terrific, produces that dismay which suspends the ordinary operations of the intellect, and the person becomes overwhelmed with the force of the impression: and the acmé of all those passions that are displayed by immediate impulse, presume a violence of explosion that destroys the regular employment of the mental faculties. It must not be overlooked, that the different passions, in addition to their interior workings, bear external and corporeal characters of their existence and movements. These are denoted by the expressions of the countenance, and by gestures, the natural emblems of feeling. The human face is the luminous index of the mind, the faithful mirror that reflects its secret agencies: gesture is its potent auxiliary, and the avowed expositor of impending emotion. Anterior to the acquirement of speech, the child can only manifest his delight, his pain and displeasure, his desires and aversions, by these natural and emphatic interpreters. The limited nature of this composition does not enable me to analyse the numerous passions that adorn or degrade our species: but the specimen that has been given will form the basis of the investigation, and be extended to the remainder. There are still some corporeal demonstrations of intense feeling, which must not be left unnoticed; blushing, weeping, and laughter. The degrees of red which tinge the skin under certain feelings and emotions, considerably vary; we observe the slight hectic of the moment, that is kindled by pride, and repressed indignation: the delicate suffusion that commendation imparts to modesty, and the crimson flush that indicates ingenuous shame. The physiology would be most interesting if competently understood. This blush is not always confined to the face and bosom, but, in situations of exposure, has sometimes overspread the thighs and abdomen. The temperature of the skin is rendered sensibly warmer, and those who are susceptible of its influence are aware of the visitation, by the intense glow they experience. It may be noticed in children, especially females, about the fifth or sixth year, but it has its most graceful and interesting predominance at the age of puberty. From our intercourse with the world, which gradually unfolds to us many of its secrets, and teaches us to consider the sexual mysteries, as the subjects of natural history; this nervous erubescence progressively wears off: and when female delicacy is prematurely extinguished, this criterion of its existence is no longer observed: yet even in the most profligate and abandoned, there are extraordinary occasions that will summon up the remnants of the tint. If certain mental emotions can suddenly infuse a surcharge of blood into the countenance, of which blushing is an unquestionable example, we shall be enabled to understand that its abstraction may be produced by the impression of fear. Among the senses that convey the silent energies of human passion, the eye claims a distinguished preference. It is unnecessary to enumerate its various offices, but to remark that parts intimately connected with it, furnish a secretion, that has uniformly been regarded with reverence, as the criterion of sorrow and sometimes of joy. At a very early age tears are abundantly shed, and before the feelings they characterise are matured. The child pours them forth under all irritations, threats, and restraints: and whenever his impetuosity is repressed, or his intentions thwarted, conjoins his vocal ejaculations, the whinings of impatience, and blubberings of discontent. These tests of emotion, although most sparingly effused by the dult, are the types of feelings that have been ripened by reflection: and the escape of a solitary tear, bestowed as an oblation to existing affection, or a tribute to departed excellence, adds a lustre to beauty, and confers a dignity on manhood. The remaining and complicated affection is laughter, and its display indicates passions and feelings that have been considered of an opposite nature. Its operation is strikingly depicted in the countenance, its movements are felt in the diaphragm, and it convulses the thorax. It is presumed to be the united mental and corporeal effect that comedy excites: it is not provoked by the brilliant sallies of wit, but is derived from the lower origin of humour, caricature, and buffoonery: it is conceived in the mutilation and disfigurement of human character and manners, and when brought forth, equally distorts the visage by its expression. It is an involuntary spasm, and in hysteria and madness, becomes complicated with morbid affection, without the usual excitement for its production. It is the index of different passions: its mitigated display is a smile, which can convey both approbation and contempt; and its loudest bursts denote either the ecstacies of mirth or the peal of scorn and derision. It has been previously observed, that animals are influenced by certain passions; and that these are essential for their subsistence, for their defence and for the continuance of their species. These feelings and emotions are sudden impulses from immediate excitement, and expire when the appetite is gratified, or the irritation is withdrawn. They can also recollect the object of their aversion or regard, when accident again introduces him to their notice. Man is likewise subject to the sallies of immediate feeling, which circumstances provoke; and these paroxysms commonly subside after a short duration: but man, from the possession of language, is enabled to invest feeling with an enduring record, and by his exclusive faculty of reflection, to contrive the means of accomplishing his purpose, and of maturing the determinations of his will: by reflection he can brood on injury, and exalt the virulence of his resentment.

In the gloomy recesses of his capacious mind, he can revolve the indignity that has wounded his pride, and after the lapse of years, can summon it to his recollection, in all the freshness of a recent infliction. In the pursuit of honourable fame, he can devote his mind to study, and intent on his purpose, submit to the privations of enjoyment: and if a member of our own profession, will reconcile the most revolting researches; and even delight in the prosecution of knowledge, where disgust is blended with peril: and if actuated by malignity, he will hunt his enemy with incessant persecution, and traverse the larger portion of the habitable earth for the gratification of his revenge. Thus the baser passions, those that display elaborate contrivance for the attainment of the purpose, and are concocted by reflection ; are peculiar to the comprehensive intellect of man. But passions, like muscles, have their antagonists, and his nature is equally susceptible of the most dignified and exalted feelings, which animals can never attain. Such is the necessity for the estimates of reason in every thing relating to mind, that the same passion, which in moderation is a commendable virtue, when drawn to its utmost extension, becomes a reproach to human character. A prudent economy may be contracted into parsimony and sordid privation; and a liberal spirit stretched to extravagance and prodigal excess: cautious circumspection may degenerate to unmanly fear, and courage become strained to desperation: love more highly seasoned is expanded to concupiscence : and a generous emulation may swell to inordinate ambition.

It must be evident that the unrestrained indulgence of these passions would constitute man a tyrant, a monster and a lunatic, if some principle did not operate to control them. This mastery may be obtained by reason, and its practical condensation into laws; the energies of which inforce the moral code by penal inflictions. In civilized communities, the human mind is strained by education, progressively adapted to its capacities, and ethics are inculcated in proportion to the advancement of reason : indeed the intemperate sallies of volition that constitute our baser passions, when reason does not subdue them, can only be restrained by the dread of punishment. But even this self control may be carried to a pernicious extent: for nefarious purposes a human being may succeed in masking his designs—by repeated efforts and long practice he may attain a refined diplomacy that can strangle passion in its birth, and obliterate from his countenance all the traces of its expression : he may assume a blank composure, that reveals not the triumph of success, nor displays the index of disaster : he may repress the tear of compassion, and stifle the bursts of honest indignation. To conclude, such are the sinister accomplishments of man, that while he is meditating the arrangements of his revenge, he can summon hypocrisy to bestow a smile on his victim, or assume the garb of friendship to conceal his diabolical malice.

Thus it has been endeavoured to display the mental composition of man : and to blend his vital energies with intelligence and feeling. These humble and imperfect attempts, it is hoped, may be the prelude to more minute investigations, and stimulate some more competent individual to superior attainment: but if I have merely succeeded in convincing you that mind, and all its constituent phenomena appertain to human physiology, I shall receive the purest satisfaction, and a high reward.

[The conclusion of this Lecture was received with the loudest plaudits by a numerous and highly respectable audience.]

LECTURES ON CHEMISTRY,

BY

MR. FARADAY.*

Delivered at the Royal Institution of Great Britain.

LECTURE XII.

On Radiant or Imponderable Matter.

GENTLEMEN,—We now arrive at a description of matter which, inasmuch as it produces different phenomena, must be regarded as differing from every other in its nature ; it is of so subtile a nature, as to require very minute and delicate investigation to demonstrate its existence; it cannot be confined nor submitted to the usual modes of examination, and it is known only in a state of motion, as acting upon our senses, or as producing certain changes in the more gross forms of matter. To the substances falling within this general definition, the term *radiant* or *imponderable matter* has been given, which it will be our duty shortly to describe in this and the succeeding lecture. There are three series of phenomena afforded by radiant matter :

1st. As regards those effects by which they are rendered visible, producing the *phenomena of vision.*

2d. We shall have to consider the operation of radiant matter in *producing heat* ; and

3d. We shall have to examine its influence in producing *chemical changes*; an influence which is of a very active kind.

As regards the nature of these phenomena, some suppose that they are due to three sorts of rays, whilst others suppose that they are due to the same kind of matter acting in different ways. Huygens and Descartes imagined, that the phenomena mentioned, arose from vibrations of a rare elastic medium, which fills space, while Newton considered them as resulting from emanations of particles of matter: and these are the two principal opinions which have been started and supported.

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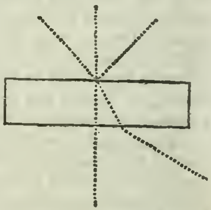
* Messrs. Brande and Faraday are in the habit of lecturing alternately on certain divisions of chemistry ; so that the subject treated of by Mr. Brande in the one course, is consigned to Mr. Faraday in the next. Contrary to this general rule, Mr. Faraday lectured on radiant matter in both of the last courses.—ED. L.

The sun is to us the great source of radiant matter, but other agencies may be called into action, by which all three of the effects enumerated may be produced. We may accomplish the combustion of bodies, and thus at once exhibit chemical change, light, and heat: with a Voltaic battery the same results can be obtained, but of course in a less degree.

Light is a matter by which vision is produced, and it is the first to which I shall call your attention, and I am the more anxious to do this, since it will at the same time tend to explain these relations by which matter generally is influenced by electricity; but you must also recollect, that the minute investigation of the laws which relate to the motion of light, and to its effects in producing vision, belongs rather to the mechanical philosopher, being a branch of the science of optics; it is, however, necessary that some of them should be partially considered, as bearing upon important questions of chemical inquiry. Light originates from the sun and other heavenly bodies, and incondescent substances, which are termed inherently luminous; or from the reflection of light from the surfaces of bodies, especially from the reflexion of the sun's rays from the surface of the earth. The course of the rays of light in their radiant form, as they pass from one substance to another, is always rectilineal, and this is evident, if we regard the shadow of a body which will represent the outline of the body interposed between the earth, the source of light. Every such right line drawn from a luminous body, is called a ray of light, and as a congeries of rays possesses the same properties as a single ray, the same term is frequently employed to designate it. The degree of radiation of light is extreme, it having been ascertained by the experiments of Bradley and others, that it is only eight minutes and thirteen seconds passing from the sun to the earth, or at about the rate of 200,000 miles per second; and I mention this to show you the extreme temerity of its nature, that although travelling at such immense velocity, it produces no tangible effect upon the human frame.

When light falls upon bodies, it is observed that there are some substances which allow it to pass through them almost uninterruptedly, as a plate of mica or glass, and that there are others which interrupt its passage and produce a shadow on the opposite side; and there are other bodies, again, which prevent the passage of light only to a certain degree, so that there are gradations from perfect opacity to almost perfect transparency. Generally speaking, opacity does not depend upon the density of bodies, but upon the manner in which the particles of light are transmitted; for it is not very probable that the particles of bodies should be far enough distant to allow of the passage of the light. It was supposed by Newton, that the particles of transparent bodies were of an uniform density and arrangement, and that they suffered the ray of light to pass through them without obstruction, by attracting it equally in every direction; whereas, he supposed, that in opaque bodies, the particles were either of unequal density or irregularly arranged, and that the light, being unequally attracted, could not penetrate through them. When light falls upon an opaque body, it produces phenomena which vary in kind; sometimes the light is immediately absorbed, and in all appearance vanishes, and at other times, when impinging upon a substance, again thrown off and is reflected, as it is called. Now the more regular and uniform the surface of the body on which the light impinges, the more regular is the reflexion, and there are a few circumstances influencing the laws of reflexion which I must explain to you. Suppose, now, that we take a perfectly plane surface, say a disc of polished metallic matter, the light is thrown off in nearly the entire quantity which fell upon it, and the angle at which it passes off, or is reflected, is the same as the angle of incidence. So far does this difference in the angle of incidence occasion a difference in the angle of reflexion, that if you hold a candle directly against a hard board; it does not possess the power of reflecting it, yet if you hold it at a very obtuse angle, a perfect image of the candle will be reflected. With regard to the transmission of light through transparent bodies, although the greater number of rays pass through them, there are some which are always reflected when they fall perpendicularly upon their surfaces, and such rays as fall upon transparent bodies obliquely will pass through them, but will be interrupted in their direction. We shall be better able to show this by referring to a diagram. Let us suppose one part of this diagram to represent a piece of polished glass, a perpendicular ray will pass through it in the direction here drawn, whilst of the oblique ray, one portion will enter the glass and suffer refraction; that is to say, it will be bent toward the perpen-



dicular, and on re-entering the atmosphere, it will be again bent from the perdendicular, as is always the case whenever a ray of light passes from a denser into a rarer medium; whilst another portion of the oblique ray will be reflected at an angle equal to that at which it fell upon the glass, or, in other words, at an angle equal to that of the angle of incidence. The fact of a ray of light being attracted toward a denser body than the medium through which it arrived at it, was adduced by Sir Isaac Newton as one of the proofs of the materiality of light; and the medium in which the rays of light approach nearest to the line perpendicular to its surface, is said to have the greatest refractive density.

The density of bodies, however, is by no means the only circumstance which alters their refractive power, it is also materially affected by their chemical nature; and generally speaking, their substances have the greatest refractive powers, which are combustible, or which contain an inflammable base, and the refractive power of compounds is not the mean of their components. Another proof, as it has been considered by some persons, of the materiality of light, is the phenomena exhibited when light has been examined by the calcareous spar, or iceland spar. If an object be viewed through a piece of spar of this kind, it appears double, you see two objects when there is only one. Now this phenomenon takes place only in certain positions of the spar, and it appears that in such positions of the spar, certain divisions of the rays of light issuing from the object is produced, the fact being, that there is a power in the crystal of separating the rays of light into two, and that in the other direction there is only one, one portion being refracted in the ordinary way, whilst the other suffers extraordinary refraction in a plane parallel to the diagonal, joining the two obtuse angles of the crystal, so that objects seen through the crystal appear double. This *polarisation* of light deserves attention, and without going far into the subject, we may just mention, that the two rays of light which have passed through the spar exhibit peculiar properties, and will be found in very extraordinary states. Now let us endeavour to explain what is meant by the polarisation of light. It has been supposed that the particles of light have assumed, in their passage, a particular position, as a needle does under the influence of the magnet; and this property of light has been diligently investigated by Dr. Brewster, Arago, and Biot. Although it is true that light reflected from bodies retains, under many circumstances, its former relations to the refractive power of the transparent media, yet in other cases it is reflected at angles differing for different substances, the reflected rays exhibiting peculiar properties analagous to those which have suffered extraordinary refraction. (Experiments were then made to show this fact, by throwing the rays of light issuing from a lamp from one mirror to another.) Light passing through crystallised substances loses its polarisation, and if a plate of mica were interposed between the mirrors employed in the experiments which you have just seen, so that the reflected rays might traverse it in passing from one surface to the other, it will be found that, under certain circumstances, the image of the lamp would remain visible, in other words, the light would be depolarised in passing through the crystallised medium. The beautiful phenomena of colours depend upon the polarisation of the rays of light, and although it was known for ages that a sunbeam in passing through a dense medium, and especially through a triangular prism, gave rise to series of brilliant tints, similar to those of the rainbow, yet the cause of the phenomenon was not known until Newton proved that light consisted of rays differing from each other in their relative refrangibilities; and, guided by their colour, he divided these rays into seven in number, red, orange, yellow, green, blue, indigo, and violet. These rays are not farther decomposable by the prism, or by any number of refractions, but when they are collected into a focus they reproduce white light, and upon this phenomena is founded the Newtonian theory of colours, which supposes them to depend upon the absorption of all rays, excepting those of the colour absorbed, red bodies reflecting the red rays and absorbing all the others, and so on. If the colours of the spectrum be divided into 360 parts, the red rays will occupy 45, the orange 27, the yellow 48, the green 60, the blue 60, the indigo 40, and the violet 80. Of these the red rays, being least refrangible, fall nearest to the spot which they would have reached if they had not been refracted; while the violet rays, being the most refrangible, are thrown to the greatest distance.

Now with regard to *artificial heat*, it varies exceedingly in colour, and it is only the light emanating from the sun, which is capable of producing a pure white heat. If a solar beam be refracted by a prism, and the coloured image received upon paper, it will be found that there is an evident increase of temperature toward the red ray, and if the coloured rays be thrown upon delicate thermometers, it will be seen that, if the heating power of the violet rays be considered as equivalent to 16, that of the green rays will be equal to 26, and of the red to 55. The experiments of Mr. Leslie seem to show, that the heating power of the spectrum extends just beyond the red ray, and that at the point where the red ray terminates the greatest heating power will be found; but I do not consider that this matter has been clearly established. The general laws of refraction apply equally well to heat as to light. Now comes an important point with regard to the proofs of the materiality of this kind of heat. In the former lectures, when we considered heat as a property of matter, we did not speak of *radiant heat*, for so long as heat is radiant, there is no elevation of temperature: thus the glass in a window does not become hot, whilst the board on the inside, from which there is no radiation, becomes quite hot.

Now thus far we have confined our observations to heat as radiating from the sun, but where a terrestrial body is heated, the heat is radiated according to the temperature of the air which surrounds it; and we have again to suppose that all bodies are radiating heat, and that this phenomenon is always going on, and that the celerity of this radiation is in proportion to the temperature of the body. The effect we perceive on approaching a fire results chiefly from the radiation of heat, in which the conducting power of the air is little concerned; and we are indebted to M. Pictet for the best explanation of the radiation of heat. The effects of radiation from terrestrial matter are best exhibited by two concave mirrors of burnished tin or plated copper, placed at about the distance of about ten feet from each other. When a thermometer is in the focus of one of the mirrors, it will be found sensibly affected by a heated body, placed in the focus of the other mirror, and that the effect is produced, not merely by radiation, but by the reflexion of heat, is shown by drawing the thermometer out of the focus toward the opposed mirror, or by placing a screen between the thermometer and its mirror; diminution of temperature being indicated in either case. We must defer the further consideration of the subject to the next lecture.

LECTURE XIII.

On Radiant Matter.

GENTLEMEN,—I have briefly called your attention to certain distinctions between the heat which radiates from the sun and from bodies on the earth; another great distinction is, that the heat which emanates from the sun, passes without any obstruction through glass and other transparent substances, whilst that which radiates from the earth, always loses a large portion of its rays in attempting to pass through such substances, that is to say, they appear to be interrupted or obstructed in passing through the glass, and this depends principally on the source of heat; these rays of heat may be collected into a focus by a lens, and there will be found to be a great difference between heat arising from different substances. There are still other differences between solar and radiant heat; and one of our main points this morning will be to consider the manner in which bodies when heated radiate heat, as relates to their surfaces.

If two different kinds of matter, say a piece of chalk and a plate of silver, were exposed to the sun's rays, they would receive heat in different proportions in a given time; the chalk would be rapidly heated, the silver scarcely at all; and the same thing would happen if these two substances were exposed to terrestrial heat. This circumstance depends not upon the nature or composition of the bodies, but upon their surfaces; for if the silver were covered with a film of chalk, it would be in the same condition as the chalk itself. This may be further illustrated as regards the sun's rays, by exposing a number of thin metallic discs to the sun, some coloured, others polished, when it will be found that the polished discs and the least coloured discs, have the least powers of accumulating heat; but that a black body will have the greatest accumulation for heat, by converting the radiant into sensible heat. Another difference in terrestrial heat is that which relates to colour; white and black paper will nearly have the same power of receiving heat, but if we use different substances of the same colour, the effects will be different; and bodies generally have the power of dispersing or radiating heat in the same proportion as their respective absorbing powers, mainly depending, as we shall presently see, on the nature of their surfaces. If two cannisters of the same size, made of the same metal, were filled with hot water, the one coloured black and the other polished, the black cannister would give out its heat quickest. These two powers have been called the receptive and radiant powers of bodies, and those substances which have the greatest reception, have also the greatest radiant powers. This subject has been fully investigated by Mr. Leslie, and carried to a great degree of refinement. I might show you this fact still more strongly by another experiment. If we take a metallic pail, fill it with hot water, and then cover the one half of it with a coating of lamp black, and leave the other half clean, it will be very evident that any difference in the radiation of heat from the vessel must depend upon the nature of its surface, and that such a difference does exist, may readily be detected by approaching the vessel with a differential thermometer; the heat thrown off from the white or polished surface, being scarcely sufficient to effect any change in the thermometer, whilst a considerable quantity will be thrown off from the blackened side. Mr. Leslie in his experiments also used a cube of this kind, the one surface presented a clean metallic polish, and was found to produce an effect upon the thermometer equal to 12°; another surface was covered with lamp black, and produced an effect equal to 100°; a third surface was covered with a thick coating of a solution of glue, and was equal to 80°; the fourth with red lead was equal to 95°. So that you see we have a great variety of substances, presenting a great range in their radiating and receptive powers; but you will understand that the difference is not so much owing to colour as to the kind of substance employed; thus we find, that white and black paper have nearly the same radiating and receptive powers. That the difference in the receptive powers depends upon the nature of the surface, may be very well shown to you by an arrangement of this kind, where a piece of tin plate has been cut into two, the one portion coloured, the other not; two small pieces of pomatum are then put upon the back of the plates, and a heated ball brought within an equal distance of both. That there is a marked difference in the receptive power of the heat in the two plates, may be seen by the fact of the piece of pomatum attached to the back of the blackened plate, whilst it would require nearly half an hour to melt the other piece. Another striking proof of the connexion between the receptive and radiating power, may be seen in the air thermometer, with the two globes coated, the one with silver leaf, and the other blackened, and you will see that the blackened bulb will be the only one which will show the reception of heat. So much greater is the receptive power of the coloured surface than of the silvered surface. Now these effects of structure have no relation to the internal structure of the mass considered, excepting that a certain thickness is necessary to produce the effect; and it is singular to see how important a certain degree of thickness seems to be for the conversion of radiant into sensible heat. Now the application of these facts will be very evident, if we wish to retain fluids in a heated state, the vessels should be clean and metallic, for, as you have seen, polished metallic surfaces have feeble radiating powers, and if they be allowed to become foul or blackened on their exterior, the heat goes off much more rapidly. To illustrate to you how strikingly the difference in the receptive and radiant powers of bodies depends upon mere surface, I shall take a piece of gold leaf and paste it upon a piece of paper, and however close it may be held to the fire, the paper will not be burnt, because the rays of heat are thrown off from the gold leaf as fast as they are received on the paper. Whenever we want, therefore, to throw off heat from surfaces by radiation, as from our fire places, such surfaces should be blackened.

I come now to the consideration of the third set of rays existing in that matter which emanates from the sun, or, in other words, of the influence of radiant matter in producing *chemical change*.

It is found, that if equal volumes of chlorine and hydrogen gases be mixed together, and placed in a dark room, that no immediate change takes place, but that if exposed to the rays of the sun, or light of day, decomposition takes place according to the intensity of the light; and that if exposed to the immediate rays of the sun, that explosion takes place. Now, if we examine the conditions on which we combine these two substances, we shall find that it cannot be owing merely to the temperature of the rays. If we take such a mixture of gases as that which I have just named, we shall find that a very high temperature, almost a red heat, is necessary, before we can produce that change, effected in a few minutes by exposure to the direct rays of the sun; which shows that there is something peculiar in the rays of the sun, in effecting chemical change, independent of their temperature. This power of effecting chemical change, resides externally to the coloured rays, when decomposed by the prism. Some of the salts of silver are very much changed on exposure to light; we find that if a portion of the salt be placed in a refracted cone of rays, we shall see that little change takes place in its colour, until it reaches the violet rays, and that the greatest change takes place a little beyond the coloured rays. You cannot have a better material for showing this fact than the chloride of silver, which you may easily obtain, by decomposing a solution of nitrate of silver with a solution of common salt; you should wash the white precipitated chloride, and place it in a stopped glass vessel; if you expose it to light, it will soon assume a greyish colour; but if you put any in the dark, it may be kept white for months. I must not leave this part of the subject, without adverting to some experiments of Morrichini, since followed up by Mrs. Somerville, respecting the magnetism produced by the decomposition of the rays of light. Mrs. Somerville made use of common sewing needles; she enveloped them in violet silk, and exposed them to the rays of the sun, and it was found that they had assumed magnetic polarity, similar to the north pole of the needle, which seems to point out a further analogy between the agencies of light and electricity.

We have seen that light possesses the three properties of producing vision, heat, and chemical change; and it appears evident, that different rays possess different powers, that some possess the power of producing light, others heat, and others, again, chemical change; and the decomposition of light by the spectrum, exhibits a gradual deviation from the least refracted or heating rays, to the most refracted or chemical rays. Now the high importance of light in nature must be evident, upon the most cursory view of the phenomena it presents to us; and we cannot but observe its influence upon vegetables, as they are made to grow in situations from which the light is excluded. In celery, for example, it is the gardener's object to deprive it of that strong taste and bitterness which the plant naturally possesses, he therefore deprives it of light, and you know that the part of the plant said to be blanched, has much less taste and odour than that exposed to the air. Those parts of plants most exposed to air and light, contain the most active properties of the plant, as the bark and leaves; and that light is also essential to the development of vegetables, may be shown by sowing mustard seed in a dark cellar, the mustard will grow, and you may have it of two or three feet in height, but it will only put forth its seminal leaves. Plants which grow in a room imperfectly illuminated, always bend toward the openings by which the light enters; and the changes which vegetables effect upon the surrounding air, are mainly dependent on the influence of the sun's rays. That the influence of light in producing brilliancy of colour, is not confined to the vegetable kingdom, we may infer from the gaudy plumage in those birds belonging to tropical climes, while more sombre and dull tints characterise nocturnal animals, and those of the polar regions.

I have now to call your attention, according to the arrangement made of this course of lectures, to certain phenomena dependent upon heat, differing from those which I have already named. There are certain bodies which, under particular circumstances, emanate light, without undergoing combustion, when heated up to a certain point, and they have been called *phosphorescent bodies*; which has been considered by some, as a proof that heat is not only immaterial, but that it is in some chemical union with the substance. Of these bodies, perhaps, the fluates of lime, the fluor spar, the phosphate of lime, and some others of that kind, are the most singular, as giving out the phosphorescent appearance; but it is to be remarked, that if after they have been once heated they should be quenched, no after appearance of phosphorescence is produced by their temperature being again elevated. I have here, as you see, a heated iron plate, on which I shall throw a little powdered fluor spar; you see that a beautiful light is produced, resembling that of the glow-worm; yet, after the first time, no subsequent luminous appearance can be produced, and there is, moreover, no change in the chemical nature of the substance, by the increase of temperature. Then, again, there are other substances which may, by certain processes, be made to receive light when exposed to light, and be made to emit it again when placed in a dark situation. If we calcine oyster shells, we shall find on placing them in a dark room, that they will emit different kinds of light, red and green, and so on,—in the course of an hour or so they will lose this property; but if you then bring them again into the light, they will reacquire a fresh quantity of light. The Bolognian phosphorus, discovered by Cascariolo, a shoemaker at Bologna, is merely powdered sulphate of barytes, mixed with a certain quantity of mucilage into a paste; it exhibits the phenomena of phosphorescence in a very striking manner. It has been observed, that very hard and white spar, when exposed to light, and brought into a dark room, will assume a phosphorescent appearance, and Baldwin's phosphorus, as it is called, is made by heating nitrate of silver to a dull red heat, so as to form it into a compact mass.

There is another set of bodies said to be *spontaneously phosphorescent*, such as the glow-worm, the lantern-fly, the centipede and marine animals; they emit considerable light under peculiar circumstances, but what the nature of the matter which produces the light is, is not known. You are aware, probably, that various kinds of matter become luminous when passing into a state of putrefaction, and that the herring and mackerel especially, are very luminous when about to undergo putrefaction. If you rub two quartz pebbles powerfully together, a fine flash of light may be produced. Calomel, if powdered in the dark, will exhibit the same thing, as will the sulphate of quinine, if shaken in a glass vessel in the dark. The same thing has been observed even in ice, when falling down mountains, or when large masses of ice, floating down cataracts, strike against each other with violence, or upon other bodies; but we have not yet been able to refer these phenomena to any satisfactory cause.

I have briefly referred to incondescent bodies as a source of light, independent of the sun's light, and independent of chemical change, and I have now to mention it in connexion with the latter, the intensity of the light being dependent upon the density of the substance and the elevation of temperature, but the state of any body when incondescent is not well understood. The immense difference of temperature required for the ignition or different substances is easily seen by some simple experiments. If I hold a piece of platinum wire in the flame of a spirit lamp, it exhibits a greater brilliancy of light than the flame itself, and that arises from the greater density of the wire; at the same time it must be understood, that there is no one substance which may not become luminous on a proper elevation of the temperature. The definition of flame, as given by Sir Isaac Newton, was that which accords with our present knowledge of it, namely, "that it is ignited vapour." Now, here you may observe a flame arising from a jet of hydrogen gas, which is scarcely visible, which shows us that flame may exist without any solid substance,—it is therefore ignited vapour; and that it possesses a considerable degree of heat, may be seen from its power of heating platinum wire to a great state of incondescence. But generally speaking, in the flame of a candle or lamp, it is the charcoal liberated by the decomposition of the material employed, which gives a body to the flame, which is the chief substance of ignition. If you apply a cold substance over a flame, or especially if we hold a wire gauze over a flame, we extinguish a portion of the flame, because we cool it, the wire gauze being an excellent conductor and radiator of heat, and that the cooled gaseous matter passes through, may be seen by again lighting it upon its upper surface. The flame of phosphorus is, as you know, exceedingly bright, which depends merely on the circumstance, that the flame of phosphorus is a solid substance, whereas the combustion of matter generally is in a state of vapour. The experiment was made of holding a wire gauze over the flame of phosphorus, and sufficient phosphorus passed through the wire to support combustion again on the opposite side when kindled. The discovery of these facts respecting the nature and properties of flame, led Sir H. Davy to apply them to the construction of that valuable contrivance, the *miners' safety lamp*, which will be explained when we have to consider the properties of carburetted hydrogen gas.

In the next Lecture, Mr. Brande will commence the description of the simple *supporters of combustion.*

FOREIGN DEPARTMENT.

ON THE MODUS OPERANDI OF ALOES, AND ITS MEDICAL PROPERTIES.

BY DR. WEDEKIND.

It is well accertained that the purgative effect of aloes does not take place till eight and sometimes twelve hours after its exhibition. Individuals in whom the secretion of bile is increased with the greatest facility, are those most powerfully acted upon by aloes. An excitement of the whole system, with quickness of the pulse, disagreeable heat of the abdomen, dryness of the mouth, succeeds the administration of this remedy. These effects are increased when the medicine is continued during several days, and if exhibited in very strong doses, it sometimes gives rise to serious hæmorrhages.

From experiments made on persons in health, and observations on persons in sickness, it has been found that a purgative which acts speedily, as, for instance, a mixture composed of a laxative infusion and sulphate of soda given at one time, with two or four grains of aloes, does not act differently than if exhibited alone. But aloes given two hours before the mixture, does not commence to operate till the effect of the latter has ceased, and the evacuations in second purging differ from those in the first, as well as in appearance as in smell. If, on the contrary, the aloes be given from six to eight hours before the mixture, the effects of the two remedies coincide, and the evacuations are generally very copious.

If the stools produced by the aloes are not watery, but bilious, fæculent, and have a specific smell, it is not owing to a special action on the large intestines, as authors have generally stated. The author of this paper had several opportunities of trying this remedy in icterus; and as long as the stools were white or grey, aloes did not purge even when exhibited in large doses; but the purgative effect immediately supervened, as soon as the fæcal matter commenced to contain bile, a proof that the presence of bile in the intestinal canal is a necessary condition of the purgative effect of the aloes. If the aloes were given in too large doses, a bilious diarrhœa generally followed.

It is, then, useless to give aloes with neutral salts, and other salts which act promptly, unless it is desired to promote the secretion of bile; and under such circumstances, the aloes should be given some hours before the other medicine. The pancreatic and hepatic secretions will be still more increased by the addition of calomel.

It appears, then, that the primitive effect of the aloes is on the liver, that this organ is excited by it as the salivary glands are by mercury, or the kidneys by cantharides; that its purgative effect does not depend, as that of many other cathartics, on an increased secretion from the intestinal canal, and an immediate excitement of the muscular fibres of the intestine; but the aloes is first absorbed, then carried into the circution, and afterwards secreted by the liver, the action of which it increases.

Dr. Wedekind thinks, that the use of aloes is principally indicated when the secretion of bile is scanty, in constipation, from atony of the colon and rectum, and in icterus, which may be attributed to atony of the liver. This medicine should be employed with much caution in irritable persons. In cases of icterus, attended with a spasmodic or inflammatory state of the liver, obstructions of the liver with dropsy, as well as in persons affected with biliary calculi, and those disposed to hæmorrhoids, its use is decidedly improper.

INCUBATED EGG.

The various vital processes of nutrition and formation, which are carried on in the fœtus of the mammalia while in its mother's body, and by means of the most intimate connexion with the parent, are effected in the incubated chick by its own powers, quite independently of the mother, and without any extraneous substance, except that of the atmospheric air, and a certain degree of warmth. The egg is covered, within the shell, by a white and firm membrane (*membrana albuminis*), which contains no blood-vessels. The two layers of this membrane, which in other parts adhere closely to each other, leave at the large end a space which is filled with atmospheric air. This membrane includes the two *whites of the egg*, each of which is surrounded by a delicate membrane. The external of these is the most fluid and transparent, the inner one thicker and more opaque; they may be separated in eggs which are boiled hard.

The internal white surrounds the yolk, which is contained in a peculiar membrane called the *yolk-bag*. From each end of this proceeds a white knotty body, which terminates in a flocculent extremity in the albumen. These are called the *chalazæ* or *grandines*. Leveille distinguishes a third *white*, and considers the chalazæ as absorbing vessels floating in it, and destined to absorb it as well as the inner albumen, and mix them with the yolk during incubation. A small round milk-white spot, called the tread of the cock (*cicatricula* or *macula*) is formed on the surface of the yolk-bag. It is surrounded by one or more whitish concentric circles (*halones* or *circelli*), the use of which, as well as that of the cicatricula itself, and of the chalazæ, is not yet ascertained. We now proceed to notice the wonderful successive changes which go on during the incubation of the egg; and the metamorphoses which are observed both in the general form of the chick, and in particular viscera. The periods of these changes will be set down from the hen, as affording the most familiar example. It will be best to give, first, a cursory chronological view of the whole process, and then to make a few remarks on some of the most important parts of the subject. A small shining spot of an elongated form, with rounded extremities, but narrowest in the middle, is perceived at the end of the first day, not in nor upon the cicatricula, but very near that part on the yolk-bag (*nidus pulli*, *colliquamentum*, *areole pellucida*). This may be said to appear before-hand, as the abode of the chick which is to follow. No trace of the latter can be discerned before the beginning of the second day, and then it has an incurvated form resembling a gelatinous filament, with large extremities very closely surrounded by the amnion, which, at first, can scarcely be distinguished from it. About this time the halones enlarge their circles, but they soon after disappear entirely, as well as the cicatricula.

The first appearance of red blood is discerned on the surface of the yolk-bag, towards the end of the second day. A series of points is observed, which form grooves, and these closing, constitute vessels, the trunks of which become connected to the chick. The vascular surface itself is called *figura venosa*, or *area vasculosa*, and the vessel by which its margin is defined, *vena terminalis*. The trunk of all the veins joins the vena portæ, while the arteries, which ramify on the yolk-bag, arise from the mesenteric artery of the chick. On the commencement of the third day, the newly-formed heat (the primary organ of the circulating process which now commences) is discerned by means of its triple pulsation, and constitutes a three-fold *punctum saliens*. Some parts of the incubated chicken are destined to undergo successive alterations in their form; and this holds good of the heart in particular. In its first formation it resembles a tortuous canal, and consists of three dilations lying close together, and arranged in a triangle. One of these, which is properly the right, is then the common auricle; the other is the only ventricle, but afterwards the left; and the third is the dilatated part of the aorta (*bulbus aortæ*). About the same time, the spine, which was originally extended in a straight line, becomes incurvated; and the distinction of the vertebræ is very plain. The eyes may be distinguished by their black pigment, and comparatively immense size; and they are afterwards remarkable in consequence of a peculiar slit in the lower part of the iris. I have found an exactly similar slit in the iris of the common lizard (*lacerta agilis,*) before it had attained maturity. Thus this structure belongs to such animals as have no *membrana pupillaris.* From the fourth day, when the chicken has attained the length of four lines, and its most important abdominal viscera, as the stomach, intestines, and liver, are visible (the gall-bladder, however, does not appear till the sixth day,) a vascular membrane *chorion*, or *membrana umbilicalis*) begins to form about the navel, and increases in the following days with such rapidity, that it covers nearly the whole inner surface of the shell within the membrana albuminis, during the latter half of incubation. This seems to supply the place of the lungs, and to carry on the respiratory process instead of those organs. The lungs themselves begin, indeed, to be formed on the fifth day; but, as in the fœtus of the mammalia, they must be quite incapable of performing their functions while the chick is contained in the amnion. Voluntary motion is first observed on the sixth day, when the chick is about seven lines in length. Ossification commences on the ninth day, when the ossific juice is first secreted, and hardened into bony points (*puncta ossificationis*). These form the rudiments of the bony ring of the sclerotica, which resembles at that time a circular row of the most delicate pearls. I have found this part much more elegantly formed than in the hen, in the incubated pea-fowl, of the fourteenth and following days. At the same period, the marks of the elegant yellow vessels (*vasa vitelli lutea*) on the yolk-bag, begin to be visible. On the fourteenth day the feathers appear, and the animal is now able to open its mouth for air, if taken out of the egg. On the nineteenth day it is able to utter sounds; and on the twenty first, to break through its prison and commence a second life.

We shall conclude with one or two remarks on those very singular membranes, the yolk-bag and chorion, which are so essential to the life and preservation of the animal. The chorion, that most simple, yet most perfect temporary substitute for the lungs, if examined in the latter half of incubation in an egg very cautiously opened, presents, without any artificial injection, one of the most splendid spectacles that occurs in the whole organic creation. It exhibits a surface covered with numberless ramifications of arterial and venous vessels. The latter are of the bright scarlet colour, as they carry oxygenated blood to the chick; the arteries, on the contrary, are of a deep or livid red, and bring the carbonated blood from the body of the animal. Hence, as is well known, the incubated bird perishes if the shell be varnished over, as the respiratory process is thereby suspended. The trunks of the arteries are connected with the iliac vessels; and, on account of the thinness of their coats, they afford the best microscopical object for demonstrating the circulation in a warm-blooded animal.

The other membrane, the *membrana vitelli,* is also connected to the body of the chick, but by a twofold union, and in a very different manner from the former. It is joined to the small intestine by means of the *ductus vitello-intestinalis,* (*pedunculus apophysis,*) and also by the mesenteric artery and vena portæ. It is well known that no true yolk is discoverable in the intestine of the incubated chick; yet sometimes (not indeed always, but under certain circumstances not yet sufficiently understood) air will pass from the intestine through this part into the yolk-bag. This fact, which was noticed by Haller, and after him by Maitrejean, has occurred also to myself in the case of a duck of the twenty-second day. The analogous umbilical bag of the fœtal-shark (which is found also in several other fishes, and some reptiles) is connected to the small intestine—at least to the *bursa entiana,* which is a peculiar dilatation of the posterior end of the intestine.

In the course of the incubation, the yolk becomes constantly thinner and paler by the admixture of the inner white. At the same time, innumerable fringe-like vessels, with flocculent extremities of a most singular and unexampled structure, form on the inner surface of the yolk-bag, opposite to the yellow ramified marks above-mentioned, and hang into the yolk. There can be no doubt that they have the office of absorbing the yolk, and conveying it into the veins of the yolk-bag, where it is assimilated to the blood, and applied to the nutrition of the chick. Thus, in the chicken which has just quitted the egg, there is only a remainder of the yolk and its bag to be discovered in the abdomen. These are completely removed in the following weeks, so that the only remaining trace is a kind of cicatrix on the surface of the intestine.—*Coulson's Edition of Blumenbach's Comparative Anatomy, by Lawrence.*

ROYAL INFIRMARY, EDINBURGH.

FATAL CASE OF CONTUSED WOUND ON THE LEG.

The following case is published for the purpose of showing the consequences which sometimes result from slight injuries; the effects of injudicious treatment; and the neglect of saving life by amputation, when circumstances demand its performance.

James Nevin, a boy of eleven or twelve years of age, was admitted on the tenth of October, under Dr. Ballingall, for a contused wound of the lower part of the leg, inflicted by the fall of a large stone. The wound, about three inches in length, extended obliquely from the inner ancle to the inside of the spine of the tibia; a considerable portion of the integuments seemed to have been destroyed; there was a slight sanious discharge oozing from the parts, and the leg was crusted over with a layer of dried blood. Two stitches were inserted to keep the edges of the wound in apposition; and cloths dipped in cold lotion applied, with the blankets comfortably turned over the whole.

11. The margin of the wound was slightly swelled; an inflammatory blush surrounded it to about an inch in extent; and an unhealthy ichorous discharge flowed from the sore. The stitches were cut away by Dr. Ballingall; slips of adhesive plaster applied in their place; and the lotion ordered to be continued.

12. On the removal of some dirty rags, and the adhesive straps, the wound presented a more extensive surface; its bottom was covered with the deadened integuments in a state of slough; and a small quantity of sanio-purulent matter was discharged. The swelling and redness had extended up one-third of the leg and to the whole of the foot, of the pain of which he complained much. He was restless during the night; his countenance flushed; pulse ninety-six; tongue white; his bowels inclined to costiveness, had been opened by castor oil, and his thirst allayed by lemonade.

13. The local and constitutional symptoms were much aggravated during the night; the inflammation had extended from the toes to the knee, enlarging the leg considerably; and the process of sloughing set up in the edges of the wound. The pulse had risen to a hundred and six; and the tongue became more furred and of a darker shade. Twelve leeches were applied under the knee; and a poultice for the first time was ordered to the wound.

14. To-day he was in every respect worse than at the last visit; the sloughing was going on more actively in the edges of the wound; its surface was covered by a dense, yellowish, tenacious matter. Pulse much the same as yesterday; and the bowels kept open by castor-oil. Suspecting that matter had formed, or that blood had been effused in consequence of the contusion, Dr. Ballingall made three incisions into the leg where the swelling seemed greatest—one about two inches in length, below the knee; the other, somewhat smaller, over the tendo achilles. A small quantity, however, of bloody serum only issued from the wounds, there being neither matter nor ecchymosis present. The poultice was ordered to be continued to the original wound; and the fresh incisions to be dressed with dry lint.

15. The pulse since our last visit rose to a hundred and twenty; the tongue became more furred, dry, and tremulous; the ulcer continued to extend at its edges; and the discharge appeared more copious and offensive. On removing the lint from the incisions made yesterday, their sides were dry, corrugated, and covered with dry blood, as if nature had made no effort at reparation. The whole to be dressed as before, with the addition of the resinous ointment under the poultice to the first ulcer.

16. Scarcely any alteration has taken place since yesterday; the fresh wounds showed some disposition to healthy suppuration; the tumefaction of the leg had not subsided; he complained of a deep-seated pain in the ancle-joint, for which leeches were ordered; and the former dressings to be continued.

17, 18. A slight amendment in the general circumstances of the case took place within the last two days. The pulse fell to a hundred and ten, but was still weak; the sloughing entirely ceased; the discharge become profuse, thin, and of a greenish colour; the swelling of the leg diminished considerably, but the foot continued œdematous; the poultice was discontinued, and the wounds dressed simply with lint.

19, 20. The pulse during these dates fell to ninety-six; but he complained of restlessness during the nights, and had three or four paroxysms of shivering; the granulations on the original sore being pale and unhealthy, they were rubbed over with a pencil of nitrate of silver by Dr. Ballingall, and ordered to be dressed as usual.

21, 22. Within the last two days the pulse rose to a hundred and thirty-six; he had also several attacks of shivering, but without being followed by sweats; the lips grew pale, and the countenance generally displayed much constitutional weakness; his appetite failed, and food disagreed with him; the granulations of the several wounds remained pale and unhealthy, and discharged from four to six ounces of greenish pus daily; and a sinus formed from the original sore to the incision made above the heel.

23, 24. A slight amendment in his general health took place within the last two days, the pulse having fallen to ninety-six, and being entirely free from the attacks of shivering, and resting well at night. The œdema of the foot subsided considerably; but the quantity and quality of the discharge remained the same; and superficial sinuses formed over the great toe.

25, 26. No alteration in his state had taken place until the night of the last of these dates, when he had several severe rigors, became delirious, and attempted to escape out of the ward; his pulse in the morning was a hundred and forty, feeble and intermitting; and the hectic countenance fully marked. The whole leg again became œdematous; and the original ulcer presented an unusual appearance, the granulations being elevated above the surrounding integuments, and looking as if they had been distended with serum in common with the other parts of the limb. In this state he was ordered purging mixtures with tartrate of antimony and an opiate at bed time. Ulcers to be dressed as before.

These medicines the boy never took, his friends, suspecting, what was really the fact, that his health had suffered from ill-treatment and confinement in bad air, took him away in the course of the afternoon, and he died on the first or second day after his removal!

SCOTUS.

Edinburgh, Nov. 17, 1827.

MR. COOPER ON THE TREATMENT OF ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—In your report of the speeches, delivered at the last meeting of the Medico-Chirurgical Society, Mr. Lawrence is stated to have argued, that because I disapprove altogether both of extensive and numerous incisions for the prevention of apprehended suppuration and gangrene in phlegmonous erysipelas, I might save myself the trouble of criticising the details of the practice. This mode of reasoning is not what I should have expected, from one so distinguished for correctness as the author of the paper on erysipelas. Had I been an admirer of long or numerous incisions, certainly a critical examination of the practice could not properly have been expected from me: on the other hand, the very circumstance of my having dissented from the advocates of this treatment, is a plain reason why I should fully explain the considerations which lead me to differ from them. At a future opportunity, therefore, I mean to enter more minutely into a critical examination of this practice; and it will then be seen, that I am very far from having yet brought forward every argument capable of being urged against it.

Another statement in Mr. Lawrence's speech requires correction: it is said, that I have alluded to three unsuccessful cases, not one of which I seem to have personally witnessed. The fact is, that the case treated on Mr. Copland Hutchison's plan, *was seen by me*, under Mr. Vincent, in St. Bartholomew's Hospital. It was not an instance of mere sloughing of the cellular substance after the incisions, as Mr. Lawrence has supposed, but a case in which a great part of the integuments of the arm was destroyed, the limb permanently crippled, and the patient's life nearly lost. It is not for me to pronounce what share the incisions had in bringing on so unfavourable a termination; and the only inference which I presume to make is, that the practice, severe as it is, will sometimes fail, like all other means, in arresting the progress of the disorder.

Of the example of fatal hæmorrhage I was not an eye-witness; but Mr. Lawrence will not be inclined to find fault with the authority on which I mentioned the fact, when he is informed, that some clinical remarks made by himself at the hospital, and published in a former Number of THE LANCET, were the sources of my information. I must also maintain, with respect to this and every other case to which reference may be made in my writings, that if the accounts given of them be not chargeable with inaccuracy, it can be of no importance whether the patients were actually visited by me or not. Mr. Lawrence argues, that the possibility of a fatal bleeding ought not to be urged as a reason against the practice of extensive incisions in erysipelas, any more than against amputation. The obvious answer to such reasoning is, that a limb, whose removal is decidedly a matter of necessity for the preservation of life, leaves no alternative: amputation is the only measure by which its sufficiently prompt separation can be effected; and whatever may be the risk of hæmorrhage, it must be encountered. On the other hand, the making of large incisions for the prevention of anticipated evils in phlegmonous erysipelas, cannot yet be said to be a method, the necessity of which for the patient's recovery, or even for his benefit, is acknowledged by all experienced and judicious surgeons, like amputation; *it is not the only resource*, as the latter operation is in a variety of circumstances. Hence, in estimating the claims of Mr. Lawrence's mode of treatment to adoption, no bad consequence, to which it is liable, would be overlooked by an an impartial judge.

With regard to the case, in which I said the patient never revived from the shock of the extensive incisions, the particulars were communicated to me by the medical gentleman associated with Mr. Lawrence in the management of the patient, and whose opinion agrees with my statement. To these bad cases may be added a fourth, which I might have visited; but as it was announced to me that the patient was *in articulo mortis*, and some business required my attendance in another direction, I declined to be " in at the death."

Few proposals, supposed to be new, are now ever made in surgery, bad as they may be, without some little contest taking place about the honour of having first suggested them. If one surgeon says, that he began to cut erysipelatous parts ten years ago; another is sure to declare, that either he, or one of his friends, did so twenty years back. For checking such ambition in the present instance, a few lines, written by Dr. Freind more than a hundred years ago, will suffice: " In inflammatory cases, and *in an erysipelas particularly*, it is often seen by experience, that *scarifying* upon the part, when the membranes are loaded and thickened, will remove the inflammation in a very sudden and surprising manner."—(*Hist. of Physic*, p. 76. v. 1. ed. 2.) This practice, then, notwithstanding its ancient trials, and the recommendation of Dr. Freind, seems not to have been attended with benefit enough even to prevent it, as far as erysipelas is concerned, from sinking into oblivion. No doubt, many cases of severe phlegmonous inflammation might have a large cut made in them, and yet the patients recover; but escapes, notwithstanding bad treatment, should always be discriminated from cures promoted by truly efficacious measures.

I am, Sir,
Your most obedient servant,
SAMUEL COOPER.

71, Great Russell-street,
Bloombury-square,
Nov. 26, 1827.

ST. BARTHOLOMEW'S HOSPITAL.

PHAGEDENIC CHANCRE OF THE PENIS.

C. T. ætat. 47. In the situation of the frænum there is a chancre of the size of a beech-nut, of a month standing, presenting a foul dirty-white surface, emitting an ichorous discharge. No vestige of the frænum remains. The body of the penis is considerably tumefied, having that peculiar hardness of character attendant on syphilitic inflammation. The local pain is very inconsiderable; there is no constitutional excitement, tongue clean, pulse, &c. natural. Mr. Lawrence (to whom the case belonged) appeared to regard the present character of the chancre of that destructive nature, as to demand the adoption of the most rigorous measures, in order to arrest its phagedenic progress. The ill-conditioned appearance of the chancre, he considered, as referrible to the effects of excessive inflammatory action; and although he did not question its venereal character, yet, in order to subdue the local inflammatory action, he was inclined to believe that general depletion offered the best chance of success. Accordingly ℥xviij of blood were ordered to be abstracted from the arm, a dose of calomel and jalap to be administered, xiv leeches were directed to be applied to the penis, and afterwards a bread and water poultice.

Oct. 12. The real character of the ulceration is now unequivocal. It circumscribes a space double that of yesterday. The local pain is trifling; there is no constitutional disturbance. Mr. Lawrence now regarded the previous measures as wholly inadequate to alter the phagedenic character of the chancre. Mercury was substituted; two grains of calomel, and one third of a grain of opium, to be taken every four hours; a drachm of blue ointment to be rubbed in every night, and the black wash to be applied to the sore.

13. The phagedenic character of the chancre seems altered. The integuments of the penis, forming the circumference, have lost their dark blue appearance; the surface of the chancre is less foul and dirty, and the penis itself is much less swollen. The calomel and opium pills to be taken every six hours, and the ointment and black wash to be continued.

14. The sore decidedly improved; the pain has been trivial and unimportant from the first; the swelling of the penis is progressively decreasing; the patient's pulse and sleep are natural; his appetite good. The mercury has affected his mouth.

16. The aspect of the sore is healthy

throughout; its foul dirty-white appearance is quite gone, and is succeeded by a healthy cicatrizing surface; the mercury to be discontinued.

In little more than a week from the last date the sore had completely cicatrized.

It appears to us, that the present was a case which indicated a mercurial treatment from the beginning. There was no constitutional disturbance; scarcely any local pain; the tumefied state of the penis was a tumefaction different from that resulting from common inflammation. It had that peculiar hardness which attends syphilitic inflammation; the sensation of heat was also considerably less than is felt during common inflammation. The line of demarcation indicating the two different modes of treatment, in cases of this nature, we think is clear and well defined. If there be much local pain, with constitutional disturbance, and a small and quick pulse, a pulse of irritation, or a pulse of considerable fulness and frequency, the antiphlogistic plan of treatment, to a greater or less extent, is evidently indicated; but full doses of laudanum best suit the pulse indicative of irritation, — the lancet, a pulse of fulness and frequency. If the local pain be but trifling, without constitutional disturbance, we might rest assured that the phagedenic character of the ulcer is consequent on syphilitic inflammation, and requires mercury for its cure.

ABUSES IN THE WESTMINSTER HOSPITAL.

Sir,—In reply to a letter which appeared in the last Number of your truly valuable Journal, from the pupils of the Westminster Hospital, I wish to state, that when I alluded to Mr. Guthrie's absence from the hospital on Saturday the 27th October, I made that observation merely because it happened to occur on the same day that one of the pupils felt himself called upon to lay before the public the shameful neglect of attendance on the part of the surgeons of that hospital. It was not many weeks previous to this occurrence, that Mr. Guthrie absented himself from the hospital in a similar manner, on the principal operating day in the week, (Saturday) previous to which occasion Mr. Harding informed the pupils, that he would perform the operation of lithotomy upon a delicate little boy of a scrofulous habit of body, who had for some time suffered much from irritation of the bladder. The day for the performance of this capital operation having arrived, a vast number of students assembled at the hospital, when, to their great surprise and astonishment, they were informed that the operation would not take place on that day, in consequence of Mr. Guthrie's having gone into the country on a shooting excursion, and requested the postponement of the operation until his return to town. Surely Mr. Guthrie will not pretend to say, that he had much regard for the sufferings of this little child, when he was kept in the hospital till the latter end of the following week before he was operated on. Being near some of the surgeons at the time the information reached the pupils, I heard one of Mr. Guthrie's colleagues declare, that it was a very great shame the pupils should be disappointed in this manner, and the surgeons of the hospital interrupted in the performance of their duty, merely for the sake of gratifying Mr. Guthrie's propensity for shooting. I think I have now sufficiently substantiated the truth of my assertion in reference to the palpable neglect of Mr. G. in the performance of his duty, without adverting to the irregularity of his attendance on other occasions, which I defy my opponents to have the hardihood to deny. I do not believe Mr. Guthrie stated the truth when he declared that The Lancet was not read by the other surgeons of the Hospital, for on the Saturday on which my letter appeared in The Lancet, Mr. Lynn informed the pupils immediately after his arrival at the Hospital, that he was sorry to find the students were obliged to complain of neglect of attendance on the part of the surgeons, and that he had himself come at the appointed hour to see his patients, and would have great pleasure in going round the ward with any of the students that wished to accompany him; furthermore he declared, that the grievances complained of should be redressed if possible. Had Mr. Guthrie the condescension to make a similar statement when he harangued the pupils in the theatre, I should not have taken the trouble of exposing his faults. In bringing this letter to a termination, I shall state that I entertain no hostile feelings whatsoever towards Mr. Guthrie or any other of the surgeons of the Hospital, my only object being to state the truth; and had the exclusion made by a pupil in his letter extended to any of the other surgeons instead of Mr. Guthrie, my observations would have been directed towards that quarter. Being still convinced of the truth of my former statement, notwithstanding the blunt and groundless assertions of my opponents to the contrary, I shall continue to subscribe myself, Sir,

Amicus Justiciæ.

Nov. 27, 1827.

THE LANCET.

London, Saturday, December 1, 1827.

The observations which we deemed it our duty to offer to the notice of the public on a former occasion, relative to the medical qualifications of Coroners, have provoked much interesting discussion amongst Barristers, and elicited a vast number of valuable communications from many intelligent members of our own profession. The novelty of our proposition seems to have excited, in many quarters, considerable surprise; surprise, however, accompanied with the strongest approbation of the course we have recommended to be adopted. That coroners should be endowed with superior medical attainments for the adequate performance of the functions they have to execute, is a fact as indisputable, as that a Judge of the court of King's Bench should be acquainted with the practice of that court. Coroners, in virtue of their office, either have or have not certain public duties to execute; if the former, we should be glad to know how these can be beneficially discharged if those officers are totally ignorant of the principles on which their decisions should be grounded; if the latter, the institution of Coroner is useless, and ought to be abolished. It cannot be denied, however, that the Coroner's court is one of vast importance to the community; that it is one of the main pillars of criminal justice, and that the mode in which its functions are performed should be zealously watched, both by the public and by government. To suppose that a person who is ignorant of anatomy, physiology, pathology, surgery, and chemistry, can correctly charge a jury relative to the *causes* of death in a majority of inquests, is so truly ludicrous, that the bare discussion of the question amounts to an absurdity. But it will probably be said, that Coroners are governed in their decision by the *evidence* of medical practitioners, and that the institution thus derives the full benefit of medical knowledge. The opinion of a judge and that of a witness are generally regarded in a very different light by all intelligent juries; as it not unfrequently happens, that *a witness* has often the most powerful motives for falsification and concealment. Dozens of bodies are annually submitted in the hospitals of this metropolis to the Coroner's inquisition, which had ceased to live in consequence of the neglect and unscientific treatment they had been exposed to in those institutions. But does the physician in his evidence state, that he had directed a patient's *throat to be cut*, because the unfortunate being was afflicted with an aneurism of the aorta? or would a surgeon state that he ripped open the abdomen for prolapsus ani? or that he had slit up the intestines to effect the removal of a foreign body, where none existed; or that he frequently operated on "enlarged glands," in "mistake for strangulated hernia;" that he had bandaged the patient's knee or his arm, until it caused death, either from irritation or mortification? or that he had neglected to apply the trephine in compound fracture of the skull, in a case where a large portion of bone was piercing the dura mater, and pressing on the brain? Such candour can scarcely be expected, as men of equal liberality with Mr. Sankey, of Dover, are rarely to be met with. That Gentleman indeed swears, that Weston's brachial artery was *not punctured*; and he also swears that *he tied the vessel*; of course, *because* it was *not* punctured, *because* there was no bleeding. Had Mr. Shipden been a medical coroner, we are inclined to suspect that the jury would have brought in a very different verdict from that of "Died by the visitation of God;" and most probably it would have been recorded, that the deceased had "Died by the visitation of Mr. Sankey." Of course no medical coroner would have believed, from the evidence of Mr. Sankey, that the artery had not been cut, or would have deemed it improbable, that a person who could give such evidence, had allowed the patient to die from hæmorrhage. Two ligatures on the brachial artery, and the vessel not punctured! and both ligatures above the place where the wound must have been inflicted! It is seldom that we have heard of such extraordinary surgery or such peculiar swearing—the one a scandal to the law, and the other an opprobrium to the profession of medicine.

We have been much gratified in seeing in the daily journals that a petition has been presented to the Court of Chancery, praying that the Lord Chancellor would set aside the verdict of the jury, in the case of the Rev. William Holmes of Nottingham, against whom a commission of lunacy was issued. It will be recollected that we offered some severe animadversions on the conduct of this jury, in our 220th Number, and exposed the absurdly contradictory terms of the verdict, denouncing it as a most dangerous innovation on the liberty of the subject. The Lord Chancellor took a precisely similar view of the question, reprobated it in strong terms, and without hesitation directed it to be set aside. We must not be understood as saying, that the Rev. Mr. Holmes is capable of managing his own affairs; but that a verdict so obtained, so contradictory, so utterly senseless, *ought not to stand.*

A Dissertation on the Features and Treatment of Insanity; containing a Retrospect of the most important Modern Theories on the Subject. By John Syer, Surgeon, &c. London: T. and G. Underwood, Fleet-street. 1827. 8vo. pp. 358.

The author of these pages having had, as he himself admits, no great intercourse with the insane, cannot be expected to have made any advancement or discoveries, either in a knowledge of the functions or pathology of the brain, or of those moral, or rather mental changes, which may perhaps occur independent of any organic derangement; and accordingly, we apprehend the well-informed reader will find in this work little original matter. But if it be considered merely as an exposè and review of the doctrines which have hitherto prevailed on this most important department of medical science, for which, we believe, it is intended, its purpose has been fully and ably answered. The observations and reasoning of the author are conveyed in very lucid and classical language; and as the illustrations are every where judiciously introduced, the work is well adapted to impress on the mind of the reader, those facts and consequent practical deductions, to which the author has had the good taste to lay no claim as peculiar to himself.

Mr. Syer, after ascribing our want of information on this extended subject, to our limited knowledge of the phenomena of the mind in health as well as in disease, and the insuperable difficulty of tracing the mode of connexion that subsists between the elements of the human understanding, and the animal superstructure of man; proceeds to show the impropriety of those views which have been sustained by many authors, and which enter so largely into the doctrines of phrenology, of the necessary connexion between disorganisation of the brain and insanity; and attempts to prove that they cannot be by any means considered in the light of cause and effect.

> "And we live to see multitudes of the most violent and outrageous lunatics attaining very advanced periods of existence, under every modification of mental suffering, and where the body appears scarcely to sympathise with the mind; or we find that the animal machine survives the mental derangement, when the state of both is nearly a wreck."

The opinion of the celebrated Pinel, that insanity was not peculiarly frequent in Great Britain, which has been erroneously asserted by many, and, indeed, that it was more prevalent in France and Germany, is confirmed by the comparisons which Mr. Syer has been able to make.

> "If any confidence can be reposed in the comparative statements of the prevalence of insanity amongst our fellow creatures in other parts of the civilised globe, and Dr. Burrows has taken some pains to investigate the point, the result will sufficiently screen us from any prescriptive right to arrogate to ourselves, or to yield to the poet's sarcasms,
>
> 'Pudet hæc opprobria nobis!
> Et dici potuisse, et non potuisse refelli.'
>
> An unprejudiced appeal to the annals of other civilised quarters of Europe, will serve to demonstrate, that this deplorable malady is abundantly more prevalent in France and Germany, in proportion to the population, than in Great Britain."

The peculiarities of this important malady are, we think, described with considerable pathos and classical taste, and the account is intermingled with several very illustrative and interesting cases.

We now come to a part of the subject on which the author has, we think, displayed much sound reasoning, that of the medical jurisprudence, in which he doubts the propriety of juries in every case returning a verdict of insanity, where suicide has been committed:—

> "But instances are not wanting where individuals have previously betrayed no other characteristic of derangement than temporary hypochondriasis or melancholy, and have still premeditated suicide with the utmost decision and coolness, the act itself seeming to have resulted from the most deliberate survey of the source of despondency, and a total disregard to the consequences entailed on their families."

There cannot, we think, be a doubt that suicide is occasionally committed where the individual is in the fullest possession of his senses; and indeed, in certain cases, where any powerful worldly causes exist, for the "tædium vitæ," the very act of destruction itself, betrays, in these instances, the full integrity of the mental powers. Although the verdict is one, certainly, of the most merciful kind towards the surviving relatives, yet we agree with Mr. Syer, in questioning, in numerous cases, its strict correctness; nor is it free from bad consequences; "and I have been prompted to think, that many individuals, availing themselves of this construction on the part of juries, have been less scrupulous in having recourse to this barbarous and heinous practice."

But the author goes the length of doubting the propriety or wisdom of the legislature, in ordaining perpetual imprisonment to those maniacs who have committed murder: "but there are cases," he says, "where we may be allowed to challenge the justice or policy of prolonging the sentence of incarceration beyond the avowed limits the existence of the derangement." Here we think Mr. S. has taken a partial view of the subject, and has not rightly considered that the maniacal offender is confined, not so much to punish him, as for the security of the public, and to guard against imposition. We hardly think that any person would feel himself secure in the presence of one, although at the time in sound mind, who had on any former occasion deliberately attempted to destroy the life of his fellow creature.

In the second part of the work the treatment of the disease is considered, and here the author seems to agree with those writers who contend for the general impropriety of much blood-letting, which appears to us to be the only safe and effectual remedy that can be adopted in the early stages of the complaint, in nine cases out of ten, although he allows that there are very many cases in which, even to a considerable extent, it is highly beneficial, especially in those which seem to arise from irregular determinations of blood at the changes of life, and particularly at the cessation of the menstrual discharge in women. The author thinks highly of small alterative doses of mercury; and recommends, we think with much good sense, the medical practioner to pay the greatest attention to the state of the alimentary canal, which undoubtedly, in many cases, even of acute mania, exerts a very powerful influence. He has quoted several cases of the disease arising solely from abdominal derangement, of which we select the following.—

> "The maniacal symptoms had occurred only three or four days previous to my first visit, and the remote cause of his affliction, independent of disordered primæ viæ, was perfectly unintelligible. He was incessantly talking incoherently, but did not appear irascible, nor did he discover any peculiar illusion of thought."

It is needless to insert the whole case, suffice it to state, that the man was perfectly cured in the course of a month, by the continued use of purgatives, large quantities of a dark fœcal matter being daily evacuated.

It has been well observed by Spurzheim and others, that where mania exists, a diseased state of the brain must exist also, although our knowledge of pathology is not sufficiently accurate to enable us to detect the alteration of structure. The converse of these opinions amounts to a denial of the influence of therapeutic agents in the treatment of mania; and such practitioners, if they have any regard for consistency, should never resort to medicinal measures.

In the concluding observations, the reader will find a critical analysis of the reasons why, in different hospitals, or under particular management, the cures have been many or few, and likewise a good description of those symptoms, or that previous history which should lead him to form a correct prognosis, and point out the particular mode of treatment.

On the whole, although the author cannot be considered to have advanced any thing new, his work is one of very considerable merit, and we have no hesitation in recommending it to the notice of our readers.

The Dublin Dissector, or Manual of Anatomy, &c., for the Use of Students in the Dissecting Room. By a Member of the Royal College of Surgeons in Ireland. Dublin. Hodges and M'Arthur. 12mo. pp. 482, 1827.

This work differs in no very essential respect from those manuals of anatomy which we already possess, excepting that some of the descriptions are given with greater minuteness, and, in some points, with greater accuracy. It is rather a singular fact, that notwithstanding the high character which Dublin possesses as a school of anatomy, no manual of the science, prior to the one before us, has emanated from that city. The work is almost entirely descriptive, very little of the practical application of the science being blended with the descriptions; a plan which we think by far the most advisable that can be adopted in a manual which is intended for the use of the pupil in the dissecting-room. There is a chapter devoted exclusively to the consideration of the joints, but the bones are not separately described.

This manual is published without the name of the author, a circumstance which, if it arose from pure modesty, would be a remarkable feature in the medical literature of the present day. But as there exists in Dublin more schools of anatomy than one, we suppose the name of the author has been withheld, for the purpose of removing any objection which the teacher of one school might feel (in case it were generally known) in recommending the production of the pupil or teacher of any other school. In a work of this kind, the absence of the author's name makes little difference in the estimation which one forms of its value, because the statements contained in it do not rest on mere *vivâ voce* testimony, but are subjects of demonstration, and capable of being confirmed if true, of being refuted if false. The work is executed with care, and is well deserving the notice of medical students.

MEDICO-CHIRURGICAL SOCIETY,

November 27, 1827.

Benjamin Travers, Esq. in the Chair.

The meeting of this Society on Tuesday evening was by no means so numerously attended as at any of the previous discussions of the present session: the number of members present was, however, respectable. After some business of little public importance had been gone through,

Dr. Seymour proceeded to read a communication of his own, on fungus hæmatodes of the stomach, which contained an account of three highly remarkable and interesting cases of very extensive fungoid disease of the coats of the stomach, pylorus, and duodenum. In one of these, the disease seemed to have extended along the gall ducts, from the small bowel into the liver, which was found to partake in a great degree of the same diseased structure as the intestinal canal itself. The vessels of the liver were filled with the fungoid matter, which was perceived on tearing the parenchyma of this viscus. The stomach had been found, at its lower part, to be nearly filled with the matter, which exactly resembled in appearance the encephaloid formation. A man of the name of Rae had been admitted into St. George's Hospital, under the care of Dr. Hewett, complaining of symptoms of obstruction in the alimentary canal, on the 12th of September; at which time a tumor could be perceived in the region of the pylorus, which left little doubt but an organic disease of the stomach or pylorus existed. It was curious, that in this case as well as the others, the patient did not suffer from pain, nor was he often affected with vomiting. After remaining some time in the Hospital, he at length sunk, being extremely emaciated and exhausted. On dissection, which was conducted by Messrs. Brodie and Hawkins, a tumour was found, which arose from the stomach, and extended to the parieties of the abdomen; the inner surface of the stomach was ulcerated, and into its cavity were projecting large pieces of fungous matter, which appeared completely to obstruct the orifice of the pylorus. In this patient, however, the chyme had found its way, during life, from the stomach into the small intestines, as food had not been rejected by vomiting. The structure of the disease in all these cases had exactly resembled that of the true fungus hæmatodes, as described by Laennec, Andral, Baillie, Wardrop, and others. In the patient whose liver was so extensively diseased, Dr. Seymour had also found several large tubercular formations, which were imbedded in the parenchyma of the viscus, and could be easily turned out of it. Every variety of treatment had been adopted in this patient, and the hydriodate of potass had been given in large doses. Dr. Seymour, in concluding his short, though interesting and instructive communication, observed, that it was a peculiar feature in the history of these cases, that patients labouring under so extensive disease of the stomach should not have suffered in any degree from pain or vomiting; symptoms which are so generally met with in almost every affection of the stomach. The want of these common symptoms could only be ascribed to some singular peculiarity in the constitution of the individuals. In some cases of disease of the stomach, where the patient suffered severely from pain, he had found the exhibition of the prussic acid to afford very great relief.

Dr. Johnson had paid some time ago a great deal of attention to the diseases of the stomach. He had consulted all the authentic cases where accurate accounts of the dissections had been given. From these it appeared, and in particular from the statements of Chomel, that where the chyme passed through the pylorus into the duodenum, pain and vomiting were not generally induced; these symptoms being only present in cases where obstruction of the orifice of the pylorus existed; and perhaps this might explain the want of these symptoms in the cases related by Dr. Seymour. In three-fourths of the patients affected with organic disease of the stomach, it was generally found on dissection, that no ulceration of the coats existed, but merely a thickening and induration of them, particularly near the pylorus. Perhaps Dr. Seymour would have the goodness to state whether, in the patient described above, the obstruction in the pylorus had been complete, as thus might probably be explained the want of these symptoms.

Dr. Seymour observed, that in the case alluded to, on dissection it was found, that the fungous mass filled nearly entirely the lower portion of the stomach, and consequently obstructed the opening of the pylorus, but that being of a very compressible nature, it probably might have yielded so as to admit of the passage of the chyme, which had undoubtedly found its way into the small intestines, as the food had not been rejected by vomiting.

Dr. A. T. Thomson had attended a gentleman who had previously been in the West Indies, in company with the late Dr. Baillie and Dr. Ainslie, on whose death, by dissection, a state of parts was found resembling those appearances described by Dr. Seymour. Dr. Thomson did not agree in the propriety of denominating the disease fungus hæmatodes. He had also had an opportunity of seeing a patient where the liver had been diseased in a similar way to a great extent, and he had found, besides the fungoid structure, the existence of tubercles, where these seemed to have been produced merely from change of the natural structure of the viscus, and not from any new formation, as the tubercles could be distinctly traced by a well-marked line, to have been merely a conversion of its structure: a preparation of this kind was in the possession of his friend Mr. Charles Bell. From this he argued, that fungus hæmatodes was not a proper designation for the diseased appearances, as described in Dr. Seymour's paper.

Mr. **Travers** paid a high compliment to Dr. Seymour's paper. He had seen many instances of similar disease in the stomach and intestines, and particularly the larger and lower bowels. He seemed to think that a state of contraction existed previously to the occurrence of the ulceration, which occurred when the obstruction had taken place to such an extent, that a *cul de sac* had formed above it. Ulcerations then were produced, and extravasation might or might not occur, according to the situation of the orifice. Scirrhus and fungus hæmatodes might occur in the same diseased structure, and in some cases of scirrhus, for instance, of the mamma, he had met with tubercles co-existing. In regard to the pain in malignant disease, it would be found that a great variety existed in this respect. It was astonishing to see what ravages cancer could commit, without giving rise to severe sufferings. He was in the habit of seeing cases of scirrhus, where the disease assumed its severest characters, and where in the last stages the patient frequently did not suffer much from severe pain. It was difficult to distinguish between the different kinds of malignant disease.

Dr. **Johnson** denied the truth of the assertion of Dr. Thomson, that tubercles were merely the alteration of the original structure; he considered them to be entirely a new formation.

Dr. **Thomson** did not mean to draw from the case he had described, such general conclusions concerning the formation of tubercles, that appeared merely to be the case in that instance, where the tubercular formations were evidently continuous with the structure of the liver itself.

Dr. **Locock** thought that they were wandering from the more immediate points connected with the communication. In cases of malignant disease, there was a great variety in regard to the *pain*. He had observed, that in cases of scirrhus of the uterus, the pain was generally constant and of a severe nature, and that in those patients where the mucous membrane was ulcerated and covered with fungi, resembling fungus hæmatodes, the pain was not present. Dr. Locock drew an analogy between these latter affections of the uterus, and those described by Dr. Seymour, and thus accounted for the absence of pain in his patients.

After some observations from Mr. Lloyd, the discussion on this paper finished, and

Mr. **Lloyd** then read the account of a case, where an aneurism had been cured by compression, without obliterating the trunk of the artery, which had been transmitted to the Society by Mr. Salter, one of their members. A woman, in the year 1816, while walking on the pavement, slipped, and in her fall, her arm went through a window, the broken glass of which, had inflicted an extensive wound of the arm, immediately above the condyles. This had been followed by great hæmorrhage, and the patient fainted. A tourniquet was applied to the arm, and Mr. Salter was sent for. After having her conveyed home, he proceeded to examine the wound, and found that the humeral artery had been divided. Being prepared with ligatures to tie the vessel, he unscrewed the tourniquet, when, to his astonishment, he found that not a drop of blood flowed. He dressed the arm with a compress of lint, and enjoined on the patient the observance of a low diet and strict regimen. The wound rapidly healed, but at the end of several months, there was discovered a tumour in the situation of it, which, at first, was of small extent, but had increased to a very considerable size. The patient was now four months gone in pregnancy, and therefore he did not think himself justifiable in tying the artery, or performing any operation. He thought that this was a case where compression ought to be employed, and accordingly he applied straps and a bandage to the arm, so as to compress the tumour. This produced the wished for result, and in a short time it was found that the swelling was diminishing, and in the course of some months it had all disappeared, except a very small portion, which afterwards remained. In 1826, this woman became affected with inflammation in the lungs, which terminated in phthisis, and he had had an opportunity of examining her body. He removed a portion of the humeral artery, and also part of the radial and ulnar, and found that the tumour had nearly become obliterated, but that the artery was still pervious.

From the results of this case, Mr. Salter showed the propriety of surgeons occasionally trying, for the cure of aneurism, the plan of compression, which of later years had been so seldom practised.

Mr. **Travers** observed, that the Society was much indebted to Mr. Salter for his valuable communication.

The Society adjourned at a quarter past ten.

WESTMINSTER MEDICAL SOCIETY,

Saturday, November 24.

Herbert Mayo, Esq., in the Chair.

After the usual preliminary business of the Society had been transacted, a young Gentleman, Mr. Andrews, previous to entering on the immediate subject of Tetanus, offered some general remarks on the impropriety of his young fellow members being deterred from speaking in a Society, which had been originally intended for their improvement, and which he seemed to consider as a fit place for the practice and acquirement of *elocution*, the want of which, doubtless, many present had, on various occasions, experienced, After enunciating these important observations, which were conveyed with peculiar emphasis, and delivered, certainly, *ore rotundo*, Mr. Andrews proceeded to read a short essay, or rather abstract, of the opinions of authors, on the nature, symptoms, and treatment of tetanus, which however well calculated it might have been to elicit debate, is yet, from its total deficiency in any thing like originality, in nowise suited to the calibre of our readers. The debate, however, which ensued, was one of rather an interesting nature, which therefore, we have much pleasure in reporting.

Dr. Somerville observed, that nothing was known concerning the real nature of tetanus, and still less was there any reliance to be placed on any kind of treatment. He had had an opportunity of seeing several cases of traumatic tetanus: all of the patients had died, and on dissection, no well-marked morbid appearance was discovered. He recollected one patient whom he had opened after death from tetanus, where he had dissected with great minuteness, even to the smallest fibre, the nerve of the limb, and no morbid appearance was discoverable in it. He had seen one patient who had been under the charge of Dr. Hamilton, (of Edinburgh,) who, God knows, did not fail in administering a sufficient quantity of purgatives, and yet the disease proved fatal; he therefore called on the Chairman for an account of the case of Dr. Thomson's, (alluded to by Mr. Andrews,) where the disease had been cured by the use of cupping in the vicinity of the spinal chord.

Mr. Stafford had an opportunity of seeing several cases of tetanus which had occurred in St. Bartholomew's Hospital, under the care of Mr. Abernethy, some of which had been treated by small doses of calomel, combined with other purgatives, and these had recovered. He related several where the disease had been produced after the receipt of various accidents, as of fractures, wounds, and dislocations, and could not, therefore, agree with Dr. Somerville, in his opinion as to the uniform fatal result of the disease.

Mr. Chinnock's experience was also opposed to the opinions of Dr. Somerville, and in confirmation of Mr. Stafford's sentiments, he related a detailed account of a child of ten months old, who was attacked with the disease to a violent degree. He had been sent for suddenly one evening, being informed, that if he did not come quickly that the patient would die of convulsions. He had prescribed a dose of calomel and scammony. On his visit early next morning, he found his patient much improved, and by continuance in the purgative plan, a cure was ultimately effected. He related another case where this treatment had proved successful. He thought that purgatives ought, in every instance, to be given, and carried to such an extent as to completely unload the bowels of that foul and fœtid matter with which they were generally loaded. After that had been effected, then he thought opium ought to be given, and then only it would have a beneficial effect.

Mr. Lambert considered the division of tetanus into acute and chronic, a good one. He had seen several cases of the disease, he would say as many as twelve. The acute cases, which he considered were well marked by the singular rapidity of the pulse, had all terminated fatally, while several of the chronic had recovered—these had been treated variously. One had got well under the use of the carbonate of iron. He could not agree with the author, when he stated that the wound always became unhealthy previous to the occurrence of the tetanic symptoms. There is at present a patient in St. Thomas's Hospital, where the symptoms occurred sixteen days after the injury, at a time when the wound was healing and had a healthy appearance.

Dr. Gregory doubted the fact of the child, whose case was related by Mr. Chinnock, being affected with tetanus at all. He was inclined, from the symptoms, to think that it had been labouring under incipient hydrocephalus, and that the child would perhaps yet show more decided hydrocephalic symptoms. He could by no means agree in the propriety of the purgative system. Tetanus he considered to be a nervous disease, and he thought that astringents and *binding* medicines, which would sooth the nervous irritation, were the proper remedies to be employed.

Dr. Barry observed, that while Mr. Chinnock was considering his reply, he should detain the Society a short time. He would first advert to a statement of the author of the paper, who considered the Society to be a school for *elocution.* Now, although his paper had been the means of calling forth an animated discussion, yet the younger members ought to recollect, that one of the first rules which Pythagorus enjoined on his disciples was, a seven years silence: he in fact gave them the *locked jaw* for that time. He considered the Gentleman opposite (Mr. Lambert) peculiarly fortunate to have seen so many cases as twelve. He had been at the head of the medical department of an army of twenty thousand men in the Portuguese service, and been with it in the campaigns of 1813-14, when injuries of all kinds had been extremely numerous, and he had not seen so many. In the cases which had come under his notice, he had at first been extremely unsuccessful, he had tried every variety of treatment, and indeed had run through every plan which either experience or imagination could suggest. At length Dr. Fergusson, of Windsor, who was his superior officer, came to his quarters; he conversed with him on the subject of tetanus, and had informed him of his great want of success. Dr. Fergusson inquired whether he had tried alternate doses of carbonate of soda and opium; he said not. Dr. Fergusson then informed him, that it had proved very successful in his hands, and recommended him to employ it in the next case which should offer. He had done so, and declared, upon his honour, that although he had treated several patients immediately after, he had not lost a single patient. He had given the carbonate of soda to the extent of a drachm, in solution, at a dose, and then followed it up by a large dose of laudanum. The manner in which these remedies proved so beneficial, he was induced to think, was owing to the soda dissolving the thick mucus which covered the internal surface of the stomach, and thus allowing the absorption of the opium; and therefore, indeed, it was the opium which produced the cure after all. While in Paris, he had been gratified to hear a lecturer (whose name we do not recollect) recommend the very same plan, which, he said, had been introduced into practice by the Germans. He only, however, recommended a small dose of the carbonate, 20 grs., alleging, that if a larger dose were administered, it might dissolve the coats of the stomach.—After the lecture, Dr. Barry set him right on that point, by telling him of this practice. In the patients whom he had dissected, he had found no disease of any part of the nervous system; but on the contrary, an inflammation of the mucous membrane of the intestinal canal, and more particularly of the small guts. When inflammation of the membranes of the spinal chord was observed after death, he considered it as the result of those violent contortions of the spine, which the convulsive action of the muscles produced, and not as the original disease.

Mr. Mayo had been looking round for Dr. Thomson, to give an account of his own case, where, after the disease had been fully established, its progress had immediately been arrested by cupping in the course of the spine. He considered tetanus to be a disease of the spinal marrow; he would not say inflammation, but some irritation of a peculiar kind. Mr. Mayo related the history of some experiments of Mr. Sewel on the horse, where that gentleman had produced tetanus, which he allowed to *kill* the animal, and then afterwards *brought it to life* by artificial respiration. He passed a panegyric on Mr. Andrews for his excellent paper, and hoped that his example would be followed by the junior members.

Mr. Chinnock observed, that it was now twelve months since he had attended the case alluded to by Dr. Gregory; and although the child had, during that time, been affected with measles and other infantile diseases, yet that no recurrence of the tetanic symptoms had taken place, nor did the patient now show any tendency to hydrocephalus. He had been mistaken in being supposed to support exclusively the *purgative system,* as it was called. He only thought that purgatives ought to be given first, until the bowels were fully unloaded, and then, indeed, opium would be beneficial.

Dr. Webster had seen four cases of tetanus, one of these had been treated by mercury till salivation was produced; two by opiates, and the other by (we think) the warm and cold bath. The one treated by salivation had recovered, the other patients had died. The dissection of their bodies had been conducted by very eminent men in the south of Europe, and no disease of the spinal chord had been detected. The cases had created much interest at the University where he then happened to be, and consequently the examinations had been performed with much minuteness. He thought it right to mention these cases to the Society.

Dr. Shiel observed, that in the south of Europe, where Dr. Webster had been, it was not the custom for medical men to give remedies in any disease, without accounting for the manner in which they were to act. He would be glad to have some information on the subject of the action of the remedies proposed. He recollected a case which had occurred in Edinburgh of traumatic tetanus, which, as it was a subject of notoriety, he would mention the lady's name, Mrs. M'Cormach, where Dr. Gregory had given wine glassfuls of laudanum for a dose; the patient, however, died. Dr. Shiel passed a high eulogium on Dr. Barry, for his very able and useful remarks and observations, which were certainly of the greatest value.

Mr. BENNETT knew also of the case of Mrs. M'Cormach, and he considered it to have been one of arachnitis, a disease which was frequently mistaken for tetanus. The great distinction between the two was in the state of the muscles after the convulsions had ceased. In tetanus they remained hard and rigid, while in arachnitis they became soft and flaccid. There was this difference between medical men on the Continent and in this country, that abroad they never administered a remedy without knowing how it should act; whereas here, when the usual means had failed, then we gave medicine empirically. Now he confessed that he considered the system followed in this country to be the better.

After some mutual complimenting by Mr. Mayo and Mr. Andrews, which we must be excused from reporting, it was announced from the chair, that the next meeting would be devoted to promiscuous business, i. e. the discussion of any cases which the members might be pleased to bring forward, and the consideration of some obstinate cases of stricture, which had occurred to Mr. Stafford, in which he had employed a new instrument for their cure. The Society then adjourned.

LONDON MEDICAL SOCIETY.

Monday, November 26.

Dr. HASLAM, President, in the Chair.

THE minutes of the last evening having been read, Dr. BLICK rose to complain of the "*irregularity*" of the proceedings. He thought that he had been unfairly dealt with, inasmuch as the president had allowed a debate to go on, upon the assumption of his having made certain observations, which he (Dr. Blick) had not made.

The PRESIDENT said, that it could scarcely be expected he should point out to the Society the precise line of argument to be adopted in the discussion of any subject; it was at all times open for Dr. Blick to show, that he had or had not made use of certain assertions.

We understood Dr. B. to allude to the circumstance of its having been argued that he could not introduce the catheter into the *trachea* of the child; whereas, as it was observed in a former Number, we simply stated that it was introduced into the *mouth* of the child, and that by this means he inflated the lungs, when the child's head was in the vagina.

Dr. BLICK went over his former ground, reiterating his previous opinions with respect to the placenta being in general *detached* at the time of the expulsion of the fœtus, and cited the authority of Dr. Hamilton, as confirmatory of this opinion.

In fact, the gist or pith of Dr. Blick's argument was, that the uterus, *as a matter of necessity*, in contracting to expel the child, by the same process altering the commensurate surfaces, *detached* the placenta; and therefore such being the case, no circulation went on through the chord after the birth of the child, and consequently there was no pulsation, truly speaking, at that time in the funis. The *supposed* physical incompatibility of the general or respiratory and the fœtal circulation being simultaneously carried on, was a circumstance also on which Dr. B. grounded his assertion of the non-pulsation of the chord, after the body of the child had been expelled.

With respect to the placenta being *detached* by those very efforts necessary to expel the fœtus, Dr. B. admitted that he delivered the placenta with the first or second pain after the birth of the child: thus allowing that some further action than that attendant upon the expulsion of the fœtus was necessary to get entirely rid of the placenta. Dr. Blick also said, that he had been informed by Dr. Barry, that French accoucheurs do not tie that portion of the funis connected with the mother. Mr. Waller observed, it was well known that the upper ligature is applied to the funis only for the sake of cleanliness, that is to say, merely to prevent the placenta from pouring out its contents; but if *no* ligature were used to that portion of the chord connected with the child, fatal hæmorrhage would ensue.

Upon this subject, Dr. STUART made a very pertinent observation, in the form of a question, namely, whether the heart of the fœtus is not the active agent of circulation, exerting a forcing and sucking power as in the adult? And hence, Dr. S. further asked, might not the placenta be detached, and yet circulation be carried on? A conversation then followed on the fœtal circulation, in which Mr. Langstaff bore a considerable share: he said that he had, by means of very minute injections from the arteries of the mother, succeeded in tinging the fœtal surface of the placenta; but, in common with other anatomists, had failed in tracing a direct communication.

All the speakers strongly contended for the fact of the chord actually pulsating after the birth of the child, and when the placenta is still in the uterus. Dr. Blick by no means gave a satisfactory explanation of a fact cognizable to every man's senses; asking whether it was not a "peculiar elasticity in the chord which gave the feel of pulsation?" or whether it might not be a vibration resulting from the sudden separation of the placenta? With respect to the expulsion of the placenta, Dr. Blick said, that in 1700 cases of midwifery which he had attended, he had only met with two or three instances in which it had not come away very shortly after delivery of the child—*he always assisted its expulsion, by making extension at the funis.*

Mr. **Iliff** remarked, that such was the usual practice; Dr. W. Hunter and others, however, seeing the mischief which in some instances resulted from taking away the placenta, determined to wait till nature expelled it: the consequences of this practice were found so alarming, that it was abandoned. This very fact, he thought, militated strongly against Dr. Blick's assumption of the placenta being detached at the birth of the child. He had notes of 400 midwifery cases from a surgeon-accoucheur, now dead: this gentleman was in the habit of waiting for the placenta to be detached by the natural efforts, and the result of his practice was as follows: with *one* case only in 400, it passed at the instant the child did; that in 382, it passed within half an hour; with 16, between this time and an hour, and in one case only required extraction, which was done at the expiration of an hour and half. Only one of these cases proved fatal.

Dr. **Blick** thought, that the erroneous views generally entertained with respect to the placenta not being *detached* at the time of the birth of the child, gave rise to a line of practice; namely, waiting for its expulsion by the simple efforts of the uterus, which in his estimation was the source of the numerous cases of morbid adhesions of the placenta, reported by authors. And therefore it was a practical point worthy of deep consideration. The *possibility* of applying the forceps, in Dr. Blick's case, having been denied, (in reference to our report) by a public lecturer, Dr. B. produced Smellie's 35th folio Plate, which is a representation of the forceps applied to the head in a footling presentation: the head even remaining above the pubes.

And here we sincerely hope this discussion has ended; for although we agree with one of the speakers that practical points should be "thoroughly sifted;" it can scarcely be thought to be one of those efforts, of which we can say, "decies repetita placebit."

ENGLISH AND SCOTCH PHYSICIANS IN FRANCE.

To the Editor of THE LANCET.

Boulogne sur Mer, Nov. 20, 1827.

SIR,—The annexed letter was addressed to the Editor of *The Morning Herald* by Dr. Robertson on Saturday last; and as it is the only way he will condescend to notice Dr. Allatt's publication, the insertion of the letter, with this, in the next Number of THE LANCET will much oblige Dr. Robertson. As the advertisement alluded to closes with a short Latin sentence, Dr. Robertson cannot omit this opportunity of following so polite an example, and accordingly subjoins two characteristic sentences:—

"————————Ille flagellis
cæsus:————————————
———————— iniquæ mentis asellus."

To the Editor of THE MORNING HERALD.

SIR,—By an advertisement in your Paper of the 15th instant, I am charged by Dr. Allatt of having suppressed a letter in the publication of my correspondence with him. In noticing the circumstance, I can only refer your readers for a contradiction of his gross (and shameless) assertion to the letters in *The Gazette of Health*, Nov. 1, and in THE LANCET, Nov. 3, which also afford sufficient grounds for me to decline any discussion with that person. In justice to me, I cannot doubt you will give an early place to this in your columns, and oblige

Your obedient humble servant,
Boulogne sur Mer, H. ROBERTSON.
Nov. 15, 1827.

MIDDLESEX LUNATIC ASYLUM.

"YESTERDAY the Committee of Magistrates, appointed at the recent general meeting of the magistracy of the county, to superintend the erection of an Asylum for the reception of pauper lunatics, held their first meeting at the Sessions House, Clerkenwell. Mr. Const, the chairman of the sessions, presided on the occasion. The meeting being a private one, we are only enabled to state that the committee resolved to advertise forthwith for a suitable piece of ground whereon to erect the building, of not less than 25 acres in extent, and in a healthy situation, near the metropolis, and where there is a plentiful supply of good water. They also will, by the same means, apply for plans, elevations, and an estimate of expenses of buildings, for the laudable purpose. We are sure our readers will rejoice, that active measures have commenced for the purpose of relieving, as far as may be, the sufferings of our fellow-creatures who may be afflicted with the worst of all of human maladies."—*From The Times of Thursday last,*

GUY'S HOSPITAL,

CASE OF DIFFUSE INFLAMMATION OF THE CELLULAR TISSUE OF THE ARM.—ERYSIPELAS PHLEGMONODES.

Amongst the diversity of opinion which at the present time agitates the medical world, with respect to the proper treatment of diffuse inflammation of the cellular tissue, or in other words, erysipelas phlegmonodes, we humbly conceive that *facts* of the following nature will be read with interest and attention. For, as Mr. Lawrence truly remarked in his admirable speech on this subject—"it is a question of experience." We may, however, say thus much generally, that it is not the practice in these Hospitals, under any circumstances, to make incisions into the inflamed parts, by way of preventing suppuration.

An emaciated unhealthy-looking Irishman, about 30 years of age, was admitted into the Hospital on the 31st of October, under the care of Mr. Morgan. The fore and upper arm, to about six inches above and below the elbow joint, were much swollen, œdematous, and of a dark red colour: the upper-arm was less swollen and less red than the fore-arm. There was a small wound at the back of the elbow, discharging an ill-conditioned pus; the man had cough, with a very feeble pulse; his tongue was moist, and bowels lax. The account which he gave of the origin and progress of the disease was that the arm first became swollen, about three weeks prior to admission, and that two small red patches soon afterwards appeared on the fore-arm: that the redness gradually increased, until the parts became affected to the extent described above. The skin, he said, had given way at the elbow, about a week before he came to the Hospital; and he had no medical assistance. He complained greatly of want of rest, occasioned by throbbing pains in his arm. Mr. Morgan observed, on visiting the patient, that it was a well-marked case of erysipelas phlegmonodes, which had proceeded to partial suppuration. He pointed out also the cachectic condition of the patient, as a circumstance contra-indicative of the practice of making extensive incisions, either when the parts were in a state of inflammation simply, in which case a *very* large portion of blood would be lost, or at the present time, when suppuration had gone on, when perhaps less hæmorrhage would ensue, but too much for the condition of the patient.

A probe was passed from the wound at the back of the elbow, and it was found that there was a sinus extending some way down the arm; this, Mr. Morgan laid open by means of a bistoury. A few punctures were made, by means of a lancet, in the fore-arm, with a view of evacuating the serum from the engorged cellular membrane. Fomentations were directed to be frequently applied to the arm, wrapping the whole limb in flannel subsequently. *Two grains of the sulphate of quinine* to be taken in infusion of roses, three times a day.* Five grains of the extract of henbane, three times a day. Half a pint of wine, in twenty-four hours, with a generous diet.

November 1st. A report made to day, states that the patient had a better night than for some time past; the swelling and redness had materially diminished. The cough is less troublesome, and the patient is free from the febrile symptoms; the pulse is very feeble. Ordered a pint of porter daily, in addition to the wine. Continue the quinine and henbane, and the use of the fomentations.

3d. Still improving, another sinus was discovered yesterday, extending from the elbow some way down the arm; a counter opening was made, and a considerable portion of ill-conditioned pus evacuated. The discharge from the former opening is thin and unhealthy; much serum escaped from the punctures. The pulse is still feeble. Ordered an additional pint of porter daily. (We undersand from the patient to-day, that he has been in the habit of drinking several quarts of porter daily.)

6. The swelling and redness have gradually subsided since the last report. The same means are pursued.

10. There is still a discharge of thin matter from the openings, with some swelling of the limb, but the redness is gone. A roller bandage is now applied round the limb.

From this period nothing material occurred, the parts gradually got well; but the patient remained for some time in a very weak condition.

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* The French, who in general reason thus—here is inflammation, *ergo*, we must adopt antiphlogistic measures—think it inexplicable that we should employ *tonics* in cases of inflammation, although it may evidently be an *effect*, in a depraved habit of body. Magendie, when in this country, we know expressed much surprise at a case of erysipelas under the care of Dr. Elliotson, in which sulphate of quinine was given. If we mistake not, he alludes to it in the last edition of his Formulary.

ST. THOMAS'S HOSPITAL.

MR. GREEN'S CLINICAL REMARKS ON WOUNDS OF ARTERIES.—APPLICATION OF THE ACTUAL CAUTERY.

In a former Number of this Journal was reported a case of wound of the radial artery, near to the wrist, treated by Mr. Green, with the application of two ligatures, and division of the vessel in the interspace. Mr. Green, on Saturday last, made some clinical remarks on this case, and on the treatment of wounded arteries generally. It is unnecessary here to recapitulate fully the particulars of the case—its leading features were as follow:—the wound had been inflicted a week previously to the operation of tying the vessel, repeated bleedings had occurred, and there was considerable inflammation about the wound, and tumefaction of the soft parts generally: the treatment was as enumerated above, with the subsequent use of cold lotions to the hand and due attention to position. The ligatures separated on the tenth day, and the patient was completely cured.

With respect to the particular circumstances immediately connected with the operation of tying the artery, Mr. Green observed that the lower ligature was of necessity applied so near to the *superficial volar* branch, that it became a question whether it would not be proper to apply the ligature below this branch, and then to secure it. However, this practice was not adopted, as Mr. Green did not consider that the current of blood through the volar branch, was of sufficient magnitude to disturb the proper results of a ligature. But "as a general rule," said Mr. Green, a ligature should not be applied upon an artery, near to the divergence of a large branch. Another point considered worthy of remark in the operation was the occurrence of profuse venous hæmorrhage, which Mr. Green had also particularly remarked in a case that he had lately seen of a deep wound of the thumb, where it was necessary to cut down upon and tie the bleeding vessel. He attributed the venous hæmorrhage to the obstruction of the return of blood occasioned by the tourniquet, which was applied in both instances. It was also to be taken into account, that in each case the parts were in a state of inflammation at the time of the operation.

From the detail of the case, Mr. Green proceeded to lay down some general rules for the treatment of wounded arteries. He said that in all cases where it was possible, two ligatures should be applied, the one above and the other below the wound; that there were no circumstances in which a patient could be fairly said to be in a safe condition, without the application of two ligatures, so great was the risk of hæmorrhage from anastomosis. To illustrate this remark, Mr. Green adduced the case of a carman who was struck down, and falling upon the railway of a cart, received a punctured wound at the upper part of the leg, between the tibia and fibula. Arterial hæmorrhage ensued, and recurred so forcibly and frequently, that it was thought proper to tie the femoral artery at the middle of the thigh; this, however, proved inadequate, for the bleeding recurred again and again from the wound, until at length it was necessary to amputate the limb. It was found upon subsequent examination of the part, that the anterior tibial artery was wounded near to its origin.

There were cases, however, said Mr. Green, in which, from peculiarity of situation, it was impossible to apply two ligatures. In deep wounds in the palm of the hand, and of the sole of the foot, where there was danger of inflammation in making free incisions, then compresses might be resorted to, but the pressure should be applied regularly.*

Mr. Green here mentioned a case of a deep wound at the inner edge of the ball of the thumb, in which, notwithstanding a compress and bandage had been applied, hæmorrhage continued unabated. In this case the bandage and compress being removed, the hand and arm placed on an inclined plane, and kept wet with evaporating lotion, whilst a piece of simple dressing only was applied to the wound: under these means the bleeding ceased. Mr. Green supposed that in this instance the irregular pressure had excited the action of the heart and arteries.

As an instance of the occasional efficiency of regular pressure in wounds, even of large arteries, Mr. Green related a case in which a young gentleman at Harrow school was wounded with an oyster-shell behind the ascending plate of the lower jaw. It was found to extend through the parotid gland, and to have wounded the external carotid artery; a compress was applied, but it was not sufficient to restrain the hæmorrhage, Mr. Cline, senior, who saw the patient at this juncture, cleared away the coagula from the wound, which was very deep, and inserted therein a piece of dry sponge, applying over this, graduated compresses of lint and a bandage. Under this treatment the case was successful.

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* A case which lately occurred at Camberwell, in the practice of Mr. Callaway, particularly illustrates the difficulty of treating hæmorrhage from deep wounds of the palm. The ulnar and radial artery, were successively tied in this case, but without the effect of staying bleeding from a deep wound in the palm; at length, as a dernier resort, an incision was made at the wound, when the bleeding ceased, probably from the wounded vessel being completely severed, and consequently its extremities retracting.

The application of the *actual cautery*, Mr. Green remarked, was a most effectual, but certainly neglected, means of restraining hæmorrhage. It was however not to be applied after the manner of the ancients, so as to sear and fry the part and produce an eschar, but with a view of exciting adhesive inflammation. From some experiments instituted by Mr. H. Cline, on animals, he found that adhesive inflammation was set up in the course of two hours. The iron should not be used when red hot, or of a white heat, but rather when of a *black heat*, that is to say, after it has been heated and is just cooling. Mr. Cline employed it in this state with signal success, in a case of hæmorrhage, after amputation of the leg; he cleared away the coagula, tracing the sinus from which the blood proceeded, but was not enabled satisfactorily to see the orifice of the bleeding vessel. A piece of wire, bent at right angles, was made of the *black heat* described, and being shielded by a canula, was in this state passed down the sinus, the point touching the part only from which the blood proceeded: the bleeding by this means was restrained, and the patient ultimately got well.

MORBID ANATOMY.—FUNGOID DISEASE OF THE BLADDER.

In a clinical lecture delivered on the 3d November, Dr. Elliotson showed the pupils a very interesting example of fungoid disease of the mucous membrane of the bladder.

The patient, a middle-aged man, was admitted into the Hospital a few weeks since, and represented that he had been ill for several months, voiding a large quantity of blood with his urine, and having great pain in his loins. He passed a full quantity of urine without the least irritation; he had no pain about the neck of the bladder, penis, testes, or thighs—no tenesmus, nothing in fact, besides the bloody state of the urine, and pain in the loins. He said that he received a severe blow on the loins five years previously, and for some time after passed large quantities of red gravel in his urine.

The pulse being quick and strong, Dr. Elliotson directed cupping on the loins, which was done twice, freely, and cold lotions were ordered to be kept constantly applied to the loins; the bowels were regularly acted upon by aperient medicines; still the urine contained large quantities of blood, and the pain in the loins was but slightly diminished. He went on in this condition for some time, when suddenly he became violently delirious, and had great pain in the head; the pulse at this time was full and strong. He was instantly cupped on the occiput, cold lotion applied, and mercury exhibited: the cupping was subsequently repeated, blisters were applied to the back of the neck and to the forehead, and the mercury given to ptyalism. It is important to remark, that as soon as the mouth became sore, the delirium was lessened considerably. As there was no redness of the eyes or face, and the pain in the head was gone, it was thought advisable to administer opium, in doses of two grains, night and morning; sleep was procured by this means, and the delirium was entirely subdued. Still the bloody condition of the urine remained the same—in fact the hæmorrhage rather increased, until at length great prostration of strength ensued, the tongue became brown, the pulse lost its fulness, and ultimately the man sunk. The oil of turpentine was exhibited for some time, but with no benefit. The kidneys and the whole of the urinary apparatus were quite healthy, with the exception of a spot on the bladder on the left side, which exhibited the appearances characteristic of true fungoid or medullary disease. We may take Dr. Elliotson's description given to the class, as it affords a clear and consise statement of the condition of the part. Over, and indeed half round, the orifice of the left ureter, there is to be seen an extraneous substance, which upon close inspection appears to be a mass formed by the prolongation of the mucous membrane; smooth for about one-third of an inch, and then rugged, split with innumerable fringe-like portions, on which are minute tubercular prominences. Among all these was a quantity of cerebral substance, white, with minute reddish points, and very soft, indeed pultaceous; so that on opening the bladder, the whole presented a mass of the size of a small walnut. This had bled profusely, and of this hæmorrhage the man had died.

Dr. Elliotson remarked, that the disease in question was a well marked example of what Hey and Burns call fungus hæmatodes; Bell, soft cancer; Abernethy, medullary sarcoma; the French, encephaloid tumour. Mr. Abernethy had been censured for using the term *medullary sarcoma*, as it was said that one structure could not be at the same time, *marrow* and *muscle*. But *sarcocele* was an established name for certain enlargements of the testicle, though the testis is not muscular, and an abdominal viscus not muscular; but a gland is called *pan*-creas. For these reasons, he (Dr. Elliotson) thought the term, medullary sarcoma, was allowable. With respect to the case under consideration, Dr. Elliotson observed, that as the tumour was so situated that it prevented neither the ingress nor egress of urine to or from the bladder, it caused no disturbance even of function. The patient died of hæmorrhage alone, as his general health was not impaired except from the loss of blood. Dr. Baillie, he said, did not mention this disease of the bladder, but gives a plate of what he calls a fibrous tumour in precisely the same situation, on the same side, and of the same size, as in this instance. Mr. Howship and Mr. Wardrop had mentioned cases of this kind, and as attended by pain and irritation. In the two mentioned by Mr. Howship, the suffering was dreadful, but the mass of disease was very great.

MORBID ANATOMY.—REMARKABLE DISEASE OF THE HEART.

Dr. Elliotson, in a clinical lecture delivered on the 10th of November, exhibited to the class a specimen of diseased heart of a very singular nature. In the first place, the pericardium was so coherent that there was in fact no pericardial cavity—here and there small portions of cartilage were seen upon the membrane. The semilunar valves of the aorta, the *mitral* and the *tricuspid* valves, were all as much diseased as was compatible with existence. The aortic valves were so much thickened, that they stood and distended as they appear only when stuffed with wool in a preparation: the opening left through the valves was only about equal to the calibre of a large goose-quill. The *mitral* valve was still more thickened, being in truth converted into a solid cartilaginous mass, with a narrow longitudinal opening—a mere slit in the centre. The *tricuspid* valve was greatly thickened, and only a small opening of about the size of a silver penny left in its centre, and apparently like the bicuspid was totally inefficient as a valve to prevent the retrogression of the blood. The whole of the lining membrane of the heart was thickened, and the valves of the pulmonary artery in a thickened and diseased state; and although not so extensively affected as the other valves, were evidently fast approaching to the same condition. The cavity behind each of the diseased valves was greatly increased—the *left ventricle* behind the aortic, the *left auricle* behind the mitral, and the right auricle behind the tricuspid. If any thing, there was an increase of muscularity to be observed, especially in the auricles; so that the thickness remaining the same, and the dilatation existing at the same time, there was really a great addition of substance—a *true hypertrophy*.

That the obstruction was clearly the cause of the dilatation was manifest, from there being no dilatation in the right ventricle, where the opening into the pulmonary artery was comparatively free; and, as Dr. Elliotson remarked, the origin of the disease was probably inflammatory, as the pericardium was so firmly coherent. The patient had suffered fifteen years previously from a very severe attack of rheumatism, and had frequently been affected with the same disease in a less degree. He was a shoemaker, was admitted into the hospital on Thursday, November 1st, and died on the following Monday—an interval of five days. He said that he had been unwell only five months; his face was thin and sallow; his legs and abdomen dropsical; the respiration was short and hurried, but he could take a deep inspiration without pain. He could walk about, but had such a tendency to syncope under the slightest exertion, that he was soon compelled to sit down: he had slight cough. It was not without great difficulty that the pulse at the wrist, or the action of the heart, was discovered; both were as faint as in a dying person; but on applying the stethoscope, although the impulse of the heart was scarcely perceptible, there was heard a loud noise over the fore part of the left ribs and their cartilages, and indeed all over the sternum, resembling the sound of a bellows in action—*bruit de soufflet*. It was heard at the moment of the contraction of the ventricles, and, of course, of the pulse.

As the patient complained of want of rest, Dr. Elliotson prescribed, on the day of admission, a dose of opium, to be taken at night, and half a drachm of the wine of colchicum three times a day. On the Saturday (the man having been admitted on Thursday previously) we saw him, in company with Dr. Elliotson; he was then lying in bed, on his back, with his head raised: he said that he had been freely purged, and was much easier; probably, as Dr. E. remarked, from the congestion which must have been present in all the abdominal veins, being lessened by the purging. However, subsequently to this, the dyspnœa became more and more urgent, and the man sunk, as we have before stated, on the fifth day.

Dr. Elliotson, in his clinical lecture, wherein he accurately pointed out the morbid appearances observable in the heart, remarked, that the smallness of the pulse undoubtedly arose from the circumstance of a small quantity of blood only being propelled into the aorta at each pulsation—the contraction of the aortic opening always having this effect. But he stated further, that the contraction of the left auriculo-ventricular opening produced the same effect, as in this case so little blood can enter the ventricle, although it may be that it can freely escape.

The small quantity of blood which entered the ventricles in the present case, he said, explained why the action of the heart could scarcely be felt. For this also there was another cause, namely, the dilatation of the left ventricle: for whenever a cavity of the heart is dilated, the impulse is proportionally diminished.

With respect to the peculiar sound heard through the stethoscope, Dr. E. said it was produced by the obstruction of the aortic valves; for if an opening of the heart is narrow, this peculiar noise is heard: but sometimes they are narrowed from temporary causes, as spasm, and therefore the sound does not prove the existence of structural disease. However, that when the noise is permanent, and combined with other symptoms of organic disease, then we may fairly infer, that the opening is lessened from structural change. If the contraction be at the openings from the ventricles, then the sound is heard at the ventricular action: if at those from the auricles, then it is heard at their contraction. In the case under consideration, the peculiar sound, as far as could be judged, arose during the action of the ventricles, and perhaps was heard all over the heart, from the great dilatation of the left ventricle; but as the heart beat very rapidly, and there was no interval after the ventricular action, it was difficult to say when the noise occurred. But Dr. Elliotson on this point further remarked, that he had been told, the enlargement of an orifice, or the inadequacy of a valve to do its duty, had the same effect—the blood regurgitating at each action into the cavity it had left. If this were really the case, there was probably a second reason for the noise, as the tricuspid valve was unable to prevent regurgitation; and it also accounted for why the sound was loudest in the situation of the right ventricle.

The lungs in this case were of a dark red colour, heavy and solid, and discharged from every part, on pressure, a large quantity of frothy fluid.

TO CORRESPONDENTS.

Communications have been received from Mr. Meredith—Mr. Seward—Mr. Horton—Dr. Edwards—Dr. Ferguson—Mr. Shepherd—Mr. Threlfall—Mr. Curtis (two papers)—Mr. Gervis, junior—Mr. Dewhurst—An Old Subscriber—X.Y.Z.—An Inhabitant of Exeter—J. R.—Fratres Westmonasterienses—F.P. (with the C. H.)—F. G. L.—A Bartholomew Student—D. (with the paper on the Man of Knowledge)—A Dresser—Interrogator—J. Z.—An Occasional Contributor—I. P. G.—A Student—A Surgeon-Apothecary. Several of these papers will be published at an early period.

S. C. E. suggests that a subscription for Mr. Cooke should be opened in Bristol; but we fear that the proposal has come too late.

The Archbishop of Canterbury *has not* the power of granting medical degrees.

Lectures of the description alluded to by a "Non-Medical Reader," will be published on a future occasion, but the period is rather distant.

Dr. M'Keever's paper on uterine hæmorrhage and Dr. Alexander's case of "intermitting paraplegia," shall appear as soon as possible,—probably in our next Number.

We should feel obliged if "C. D." and the author of the paper on the job, concocted for the "Resident Secretary and Actuary," would confidentially favour us with their names.

We have held no communication with Mr. Guthrie, either directly or indirectly, and consequently have had no interview with him. The report in question is an infamous calumny.

Literary Announcements in our next.

In the List of Mr. Cooke's Subscribers, in our last Number, the following names were omitted :—

	£.	*s.*	*d.*
A. Fletcher, Esq. King's Road, Chelsea..	1	1	0
Leicester Subscription :—			
Dr. Arnold	1	1	0
Dr. Freer	1	1	0
Mr. Macauley, Surgeon	0	5	0
Mr. Highton	0	10	6
Mr. Paget	1	1	0
Mr. Broughton	0	2	6
Mr. Nedham	1	1	0
Mr. Down	1	1	0
Mr. Wilkinson	1	1	0
Mr. T. Paget	1	1	0
Mr. Freer	1	1	0
Dr. Hill	1	1	0
Mr. Oliver	0	10	6
Mr. Fowler	0	10	6
Mr. Gosset	1	1	0
Mr. Jump	0	5	0
Mr. Stallard	0	10	6
Mr. Denton	0	10	6
Mr. Harris	0	10	6
Mr. Bloomar	0	10	6
Mr. Blunt, Wigston	1	0	0
Mr. Bowman, ditto	0	10	0
B.	0	10	6
Mr. Fosbroke, Loughbro'	0	10	0
Mr. Wallis ditto	0	10	0
Dr. Peach ditto	1	1	0
Mr. Eddowes ditto	1	1	0
Mr. H. Eddowes ditto	1	1	0
Mr. Palmer ditto	0	5	0
Mr Jones, Lutterworth	1	0	0
Mr. Birdsall, Syston	0	10	6
A Friend to the Profession	0	10	0
Mr Parsons, Architect	0	10	0
Mr. T. Combe, Bookseller	0	2	6
Mr. Bartrum, Chemist	0	5	0

THE LANCET.

Vol. I.] LONDON, SATURDAY, DECEMBER 8. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture IX.

Delivery.

In the preceding Lectures, Gentlemen, your attention has been engaged by the first great section of our subject, namely, the pelvis, the child, and the softer parts in connexion with the pelvis, so far as the knowledge of these is necessary to the comprehension of *delivery*. From inquiries of this kind we now proceed to the division of our subject which stands next in order, comprehending *delivery in all its varieties;* and we may commence with a few general remarks.

It is scarcely necessary to observe to you, Gentlemen, that by the term *delivery*, you are to understand that process by which the *ovum*, the *fœtus* I mean, and the secundines are pushed into the world. This process, occasionally very brief, is more frequently protracted, and may, therefore, be conveniently divided into distinct *stages*, or *periods*. By different accoucheurs you will find that different methods of division have been adopted; for myself, I am accustomed to separate the process into its *three stages*, (a division which I find sufficiently minute for practical purposes,) the first stage terminating with the complete expansion of the os uteri, the rupture of the membranes, and the discharge of the water; while the second closes with the expulsion of the child; and the third, with the detachment and the expulsion of the secundines. Of these three stages, in a natural labour, the last is the most important to the general practitioner, and I would advise you to study it with attention, for if we except the flooding cases, the laborious and difficult labours, which in the second stage require more than ordinary skill on the part of the accoucheur, are by no means so frequent as those who are inexperienced are apt to imagine.

I think I observed to you, in the introductory lecture, that the process of delivery, though (except in extreme cases where the *Cæsarean operation* may be necessary,) always essentially the same, yet that it varies a great deal in its circumstances in different cases, so as to require a corresponding diversity of treatment. Hence arises the necessity of dividing your labours into classes, not for the sake of making useless and refined distinctions, and wasting your valuable time and more valuable intellect in logomachies about method, but in order that plain practical rules may be laid down for the management of different forms of labour. Now the various forms of parturition may, I think, be divided commodiously enough into five classes, and it is this classification which, after some little experience in the art of teaching, I have been accustomed to adopt, so that in the subsequent lectures, to one or other of the following five classes of the *natural*, the *preternatural*, all the *flooding* cases, and those which are laborious and those which are anomalous, all labours will be referred.

By a labour which is *natural*, I understand not only those deliveries in which no morbid symptoms whatever occur, but also those cases of parturition which are natural upon the *whole*; that is, where the head of the child is presenting at the full period, and where the fœtus and the secundines are expelled by the natural efforts, and this too, within four-and-twenty hours from the decided commencement of the labour; and in our acceptation of this term the labour is deemed natural, provided these characters concur, even though in place of the vertex the face or forehead should present. If it so happens, as it will sometimes, that the head of the child be not presented, but that some other part is found to be over the centre of the pelvis, the foot for example, or the breech, the abdomen, the shoulder, or the arm, or the leg, the labour then requires to be managed by rules peculiar to itself, and these deliveries are properly enough classed together under the head of *preternatural* labour. With very large eruptions of blood, labours are sometimes attended; these eruptions of blood preceding perhaps, or accompanying or following, the birth of the child. Peculiar practices of course are required, when great quantities of blood are coming away, and life is endangered in consequence; and it becomes necessary therefore to constitute a third class of labours, comprising, not indeed every case in which a small red appearance is observed at the vagina, because, in many, if not all cases, this occurs, but those cases in which you have blood coming away in alarming abundance, whether before or after parturition; and these may be denominated the flooding labours. By *laborious* labours, which constitute our fourth class, I understand those few labours, (for in judicious midwifery they are few,) in which it is necessary to have recourse to instruments to complete the delivery, whether the lever, the forceps, or the perforator be preferred; and lastly, by labours which are *anomalous* and *complicated*, I understand those labours which, with the exception of the extra uterine, are, upon the whole, natural enough, but to which there is superadded some extraordinary symptoms, requiring corresponding or important variations in the method of managament. Cases, for example, in which you have inflammation of the head, the chest, the abdomen, and so on, creating difficulty; or those cases in which you have ruptures of the perinæum, vagina, or uterus; and those cases in which there is fever, plurality of children; or in which the fœtus is lying externally to the womb. Thus much then respecting the classification of labours, so far as I conceive observations on them may be of practical utility.

When you are summoned to a labour, Gentlemen, and especially if you have engaged yourselves to attend, I would advise you, by all means, to see your patient *as promptly* as may be afterwards; for although sometimes you may be prematurely present, and may have to retire, yet procrastination is never wholly unattended with danger, because the labour may proceed more rapidly than you imagined; and there may be floodings, preternatural presentations, or other anomalies, requiring prompt obstetric aid. A child may descend under the feet presentation, and, in consequence of your absence, the head and body of the fœtus may be retained within the parent at the time when there is a pressure on the *umbilical chord*, and the circulation being impeded, the child may be suffocated. To avoid these, and similar mischiefs that might occur, and which I might mention, it is better, in adherence to the general rule, that the accoucheur in all cases, and especially where he has engaged himself, should attend at the *earliest moment* after the summons is received.

If the case to which you are called, be known to be laborious and difficult, the lever, the forceps, and the perforator, may be taken along with you, more especially in a country place, where you may have to ride many miles. But, as a general habit, I strenuously dissuade you from making familiar companions of your instruments, because they are not wanted—*noscitur a sociis.* The very fact that an accoucheur, on all occasions, puts the lever into his pocket when he goes to attend a labour, proves that he is an officious, meddlesome, and, therefore, in my mind, so far, a bad accoucheur. Some men seem to have a sort of instinctive impulse to put the lever or forceps into the vagina. Repeatedly I have stated to you, that you are not needlessly to interfere with the natural efforts. It is only, therefore, in those cases where you have every reason to expect difficulty, that you are justified in taking your instruments. "Lead" yourselves "not into temptation;" if you put your instruments into your pocket, they are very apt to slip out of the pocket into the uterus. The only apparatus which I should advise you to take with you in ordinary, is a case containing the *tincture af opium*, a *catheter*, a *tracheal pipe*, and a *lancet*. Your lancet for bleeding is very convenient in the country, especially where the women are robust, plethoric, and, with the softer parts more rigid, demanding the relaxation which venesection is calculated to produce. By all means carry with you, too, the tracheal pipe, designed to inflate the child's lungs where it is still-born, in a manner hereafter to be fully explained; and by this instrument, many a child may be preserved. Where the bladder is filled, and there is a difficulty in emptying it, the catheter may be required, hence the advantage of this instrument; a double catheter, or flattened, should be preferred. Sometimes during delivery, but still more frequently afterwards, opium is required, and the fluid form is of more rapid operation. If a woman has had no children before, and suffers but little after her delivery, your opiates are needless; but where there have been two or three children, and you learn from your patient that she always suffers a great deal of pain after delivery, the best method of relieving this pain, is to give her about thirty drops of the tincture of opium about one hour after the delivery, thirty drops more being administered an hour after the first, if relief be not obtained.

If you are well known to your patient, on reaching the house you will be welcome to her apartment; but if you have not frequently seen her before, nor attended her on former occasions, I would recommend you not immediately to pass into her chamber. Not having her full confidence, by your presence you might agitate her, and in these cases it is proper to avoid every thing that may produce commotion of the nervous system. It is better, therefore, that the accoucheur retire into some adjoining room, where he may see his lady patroness the nurse, who has generally a great many foolish nothings to say, all of which he may as well bear with patience and *bonhommie*, two useful *obstetric instruments*, (laughter,) which may be fearlessly carred to every labour, and the practice of which may be learned excellently well on the *lady* in question. When the shower of words is blown over, or when Mrs. Speaker reluctantly pauses to draw breath, dexterously seizing the auspicious moment, you may make inquiries respecting the progress of the labour, the condition of the bladder, the state of the bowels, and so on; questions which, in ordinary cases, may with more delicacy be proposed to the nurse than to the patient herself. Should you chance not to be a weak head, a dear man, a pious man, a good kind creature, or still worse, should the lady be pettish, and declare you to be a brute or a physiologist, so that for these manifold offences she never, never will —never can see you—you may remain in the house, as the female '*never*,' in these cases, comprises but a small portion of eternity, perhaps on an average some one or two hours, (laughter,) and when caprices and antipathies are a little subdued by the pains, your presence will be cordially welcome. Now, then, the pains being severe, after you have entered the room, you may make your examination, and if you find the labour is rapidly advancing, you must remain at the bed side, lest the child should come into the world in your absence; but if on the other hand, you are satisfied that delivery is merely commencing, you may use your own judgment;—remaining, or retiring into another room, as little circumstances render expedient. But here let me remark to you in the way of caution, that the head sometimes comes away very suddenly, particularly when the pelvis is narrow at the brim, as formerly demonstrated. The os uteri may have been open for one or two hours, the head making no progress; when unexpectedly, under one severe pain, perhaps, the fœtus descends, and emerges when it may be you are on the point of leaving the chamber. Be on your guard under such circumstances, otherwise, as many others have done, you may lose the confidence of the patient.

The more quiet the room the better. The *cooler* the better; a small fire is advisable, unless the weather be oppressively sultry, for it tends to ventilate the apartment. There should not be many companions with the patient; the nurse, the accoucheur, some very intimate friend, a sort of confidante, to whose kind and sympathising ear she may communicate all her anxieties and all her sorrows,—these are the only attendants she requires.

If the labour is not making much progress, confinement to the bed is not necessary. Such confinement, indeed, tends to make a woman solicitous and impatient, because it leads her to expect that the child will rapidly come away. In the first period, therefore, when the os uteri is beginning to open, and the delivery is proceeding in a very tardy manner, the patient may choose her own position, sitting, standing, or pacing the chamber, as inclination leads; but if you find the labour is going on rapidly, as you do in most cases, where you have been called in by the advice of the nurse at the proper moment, you must then confine the patient to that posture under which the delivery is to be accomplished.

Among different nations and different tribes, different postures of delivery are become in a manner *national*. The German ladies, I am told, are delivered in the sedentary position, well calculated to accelerate parturition, by keeping up the bearing of the child's head on the os uteri. In *this country* our women are delivered usually when *lying on the bed*, a posture more easy to themselves. In Ireland, those of the plebeian class are frequently placed upon the knees and elbows, a custom to which some of them adhere when they come over to this country. For ordinary use, however, in British midwifery, I conceive that our national position is the best, because in general it is to this posture of the body that the obstetric rules are accommodated. Now in easy deliveries, when the obstetric offices are few, the woman may lie on the left side, near the edge of the bed, with her feet against the bed-post, and a towel or long napkin secured to the same post in her hands, so as to give her firm points of bearing during the pains; or if the head be not likely soon to reach the outlet of the pelvis, she may vary this posture, as inclination leads. But in those labours which require all the assistance of our art, the posture ought to be composed with greater nicety, and the lady as before lying on her left side close upon the edge of the bed, the shoulders should be thrown forward, and the loins backward, and the spine a little incurvated; the knees should fall towards the bosom, and the bosom towards the knees, and the abdomen towards the bed; the patient, in a word, lying in the position of this image.

When patients are in this manner placed upon the bed, it becomes necessary to defend the bed by a proper apparatus, in order to prevent its being injured by the discharges, and this apparatus it is which constitutes what is called the *guarding*. Among the lower orders of society, it is frequent custom to roll up the bed, and a blanket is interposed between the patient and the sacking; but in the middle and superior ranks a more complicated contrivance is adopted, varying according to fancy, but essentially constructed as follows: a skin of red leather, as broad as the leaf of this table, is laid on that part of the bed where the woman's hips are placed, and over this one or two blankets, or two or three sheets, folded so as to form an absorbent mass which may imbibe the discharges; over this there is spread out another sheet, which is either pinned to the bed furniture or fastened to the post of the bed, so as to keep the whole of the apparatus in the proper place. The guarding of the bed is the office of the nurse, and with it the accoucheur has little concern, but I am induced to touch on this familiar topic, as when the accoucheur is of juvenile appearance nurses will sometimes inquire, *ex insidiis*, in what manner he would wish the bed to be guarded? Now if you were at a loss here—if you were ignorant of the apparatus—if surprised, you were to ask what the woman meant, adding, perhaps surlily, that the only guard necessary was *yourself*, she would infer you had seldom been at the bed side before, and presume your ignorance of more important matters. *Parva leves capiunt animos*, and with these the bulk of the intellectual world is peopled.

Natural Parturition.—But quitting these general remarks, we will now proceed to the consideration of natural parturition, or that form of labour in which the child's head presenting at full period, is expelled by efforts which, on the whole, are natural, within four-and-twenty hours after the discharge of the waters. And in a view to my observations upon this process, the whole course of it may be divided into two parts, the first of which terminates with the birth of the child, and the second with the expulsion of the secundines. And first, of the expulsion of the child from the pelvis.—In natural parturition you will sometimes find the delivery is promptly terminated, and with few preliminary symptoms, particularly in the case of women whose family is large, whose pelvis is capacious, and whose softer parts are relaxed. A single pain perhaps occurs, and the child is pushed unexpectedly into the world. More generally, however, parturition coming on in a more gradual manner, precursory symptoms occur, and first the patient observes above a shrinking of the abdomen, which appears to sink down towards the pelvis; this being produced, I suppose, in part by the contraction of the uterus, and partly from the mass of the uterus, together with the child, subsiding gradually into the pelvic cavity. This sinking may occur two or three days, perhaps more, before active parturition commences. When, too, delivery is about to begin, women frequently have a good deal of irritation about the bladder, and sometimes the intestines being affected, they are infested with diarrhœa and tenesmus, together with a frequent desire to pass urine—symptoms on which we observed before; sometimes with these premonitory symptoms is combined a discharge which issues from the vagina, consisting of *mucus* tinged with a little blood, and this constitutes what is called the *show* or *token* of delivery. The mucus is from the follicles, numerous and large, which lie in the mouth and neck of the womb, and the blood consists of a small drain from a few capillary vessels, passing from the cervix uteri to the membranes, and laid open by detachment of these membranes and disruption of these vessels, when the lower frustrum of the ovum descends a little, and the mouth of the womb dilates. Hence it is, because the show of the blood is indicative of the dilatation of the os uteri and the incipient descent of the membranes, that this sanguineous appearance may be looked on as the token of commencing labour. Now, when the labour is about to commence, all these symptoms may be manifested, and you may class them together under the head of the preliminary or precursory symptoms; the shrinking of the abdomen, the discharge of mingled mucus and blood, the irritation of the bladder, and the disturbance of the intestine, of various duration before active parturition commences; lasting, for a few days or a few hours.

Here, however, I must pause a moment to show you by this apparatus, the mode in which the abdominal tumour subsides; and the preparations exhibited, display the membranous bag formed by the ovum, and the numerous large follicles in the neck and mouth of the womb.

When women have borne large families, of ten or twenty children, for example, delivery sometimes commences with but little preparatory suffering; more frequently, however, and in first labours especially, you have a great deal of *cutting*, *sawing*, and *grinding* felt during the first stage, while the mouth of the uterus is gradually expanding itself, and the ovum is pushed down. In ordinary cases, those cutting, sawing, and grinding pains, felt in the back, front, and sides of the abdomen below, and in the upper part of the thighs, attack the patient at pretty regular intervals, of from twenty to thirty minutes. Occasionally, however, we meet with women in whom the grinding and cutting pains are permanent, the patient complaining, and writhing, perhaps, almost incessantly for hours together; and this particularly, if she be irritable and sensitive; and I the rather notice this, because I have seen practitioners confounded by these severe cutting pains when permanent, supposing that they must be attributed to some other cause than the efforts of parturition.

After these pains have continued for a longer or shorter period, a few minutes or a few hours, we then observe the commencement of the bearing efforts under which the woman draws in her breath, bears down forcibly, and is compelled to make a struggle with all the muscles of her body, abdominal, thoracic, and of the members. Those bearing pains which are accompanied with a sort of groaning, are attended with the descent of the child's head, and are found, therefore, to occur principally in the second stage of the delivery, after the os uteri is dilated, and the waters are discharged.

While those efforts are going on, whether attended with the cutting, sawing, grinding sensation, and a great deal of bearing or not, we find great changes are produced in the state of the os uteri and vagina. On a first examination, the disc of the os uteri is, perhaps, no broader than a sixpence; but dilating gradually with uncertain rapidity, it assumes successively the breadth of a half crown, or a crown-piece, or a circle of still larger diameter; and undergoing these dilatations, it may be very *thick*, *soft*, and *yielding*, which is desirable; or it may be *rigid*, *thin*, and of unwelcome firmness, when delivery proceeds more slowly, unless, as sometimes sudden changes occur. Examining the os uteri also, you have an opportunity of examining the membranes; and doing this, you may distinguish the cyst charged with water. When first an examination is made, the os uteri being little dilated, the membranes with the water not protruding, perhaps the cyst cannot be felt, and, in your obstetric noviciate, deceived by this circumstance, you may imagine that the water is already discharged; but, as the labour advances, the fluid collects about the mouth and neck of the womb, and first the aqueous cyst is felt within the uterus, and afterwards tense and overcharged during pain, it pushes down through the dilated os uteri forming there within the vagina a hemispherical swelling, the gathering of the waters, in form like the breast, but without its softness. At this time, when the pains are on the patient, the bag seems as if it were overcharged with water, and on the point of disruption; but touching it again, as soon as the pains go off, we find it relaxed and yielding, as if but partially filled. And here it may be proper to inspect these preparations, which show respectively the different phases of the os uteri, and the varying protrusion of the membranes; they deserve to be examined with attention. When, at length, the mouth of the os uteri is laid wide open, the bag, which seems to be extremely tense, lying out into the vagina, bursts open spontaneously, or under the touch of the accoucheur, or without his touch, and a large eruption of water, of half a pint or a pint, for example, takes place, and thus, though you are not feeling the membrane at the moment, you may know the laceration has occurred; here, however, it may be as well to remark, that it is not always a rupture of the membranous cyst, containing the child, that takes place at this time, for we may have a rupture of another receptacle, this membranous receptacle being made up of *three* thinner tunics, one lining the other; and the water may issue from the bag, formed between the *decidua* and the *chorion*, that is, the two outer linings, a considerable discharge being produced in this manner. When the eruption is not from the bag in which the child is contained, alarm may be occasioned, but this is groundless; nor do I know that the point is in any way of much importance, though, to prepare your mind for the accident, I thought it proper to mention it. Let me add, that when there is a plurality of children, the number of gushes may correspond with the number of the fœtuses.

Well, when the mouth of the uterus is fully expanded, and the bag as thoroughly laid open, the head of the child passes through the pelvis in the various ways so largely demonstrated, and which, therefore, I shall here but consider very briefly. The vertex, as usual, presenting in the beginning of the labour, the face ordinarily lies towards the synchondrosis, the occiput towards the acetabulum, and the chin upon the chest, in the position here demonstrated; while the labour closing, and the head emerging, the face lodges in the hollow of the sacrum, the occiput under the arch, the sagittal suture on the perinæum, and the chin upon the chest still.

In labours on the whole natural, however, when the vertex presents, the face may lie on the symphysis pubis throughout the delivery, the chin being thrust forcibly down upon the chest, and the head passing the pelvis in the way I here show you, with the shortest of the three axes; that, I mean, stretching from the upper part of the forehead to the lower part of the occiput, lying, throughout the labour, between the front and back of the pelvis. In cases of this kind, formidable difficulties may arise, and sometimes craniotomy becomes necessary, and much more rarely the forceps, the head being sometimes expelled by the natural efforts within the twenty-four hours, not without much pressure upon the bladder, rectum, and perinæum.

In labours on the whole natural, presentations of the forehead, occiput, and ear, may occur. Of the ear, the presentations are so rare, that I deem it unnecessary to dwell on them; and presentations of the occiput requiring no peculiarities of management, require no further notice; but when the forehead is lying over the centre of the pelvis, the case becomes a little more important. The forehead presenting in the manner now demonstrated, rectification or instruments, as explained already, may become necessary in some cases; but in most instances, I believe the labour may remain altogether natural enough; notwithstanding the fœtus being expelled within the twenty-fours hours by the unassisted efforts of the womb, the presentation sometimes changing for that of the forehead, and sometimes for that of the face. When the face of the child presents, rectification may be sometimes proper; or if the head be large, or the pelvis small, or the parts rigid, the perforator may be required, the forceps being seldom admissible when instruments are really necessary; but in face presentations, generally, if you will leave them alone, I believe the head will frequently descend under the natural efforts; though the softer parts, the rectum, bladder, vagina, and perinæum more especially, may be compressed more than desirable. So that it seems, from this general survey, that in natural labours, as they are technically called, there are various ways in which the head may pass, or attempt a passage—the vertex presentations being most frequent; but the presentations of the face, the forehead, the occiput, or the ear, the more rare, not being excluded altogether.

The passage of the child through the pelvis is attended with a great deal of *pain*, as we all know; and so certain is this, that the efforts are usually denominated the *pains*. The sensations are described as of various kinds—*dislocation, bursting*, incision, and a certain *indescribable* feeling, which it is extremely difficult to render intelligible to our sex. But, to explain:—when parturition is going forward, in its commencement particularly, the woman may have a pain, as if the sacrum were going to quit its place. This is what I call the *dislocatory* feeling. This feeling leads the woman to call upon the nurse, and bid her bear upon the back—a practice from which she finds considerable relief. I suppose, therefore, this sensation may be partly produced by the sacrum being put aside a little by the passage of the child. I was once asked by a lady, whether, at the moment of delivery, the back bone was not actually dislocated? Such was her feeling on the subject. And as there is a relaxation of the ligaments during the delivery, as I before explained to you, some slight displacement of the sacrum posteriorly may be supposed really to occur. Nevertheless, I have strong reason for suspecting, what I should not have supposed *a priori*, that this pain in the loins is owing to the dilatation of the *os uteri*; for, where I have myself been putting my fingers into the mouth of the os uteri, and dilating it, when perhaps I ought not, and when it may be I had better, perhaps, have refrained, this feeling of dislocation has been distinctly felt. During the passage of the head through the vagina, it is that the next sensation, that of disruption, is perceived; and this sometimes so forcibly, that I have heard patients compare it to a feeling, as if they were torn limb from limb.

The cutting, sawing sensations, are observed on two occasions; first, when the mouth of the womb is expanded, and secondly, when the head passing the genital fissure, the perinæum is forcibly dilated, women sometimes exclaiming at this time, You are cutting me, when in reality, the accoucheur is merely supporting the part.

The strong contractions of the womb which expel the child, and which may be called the *bearing efforts*, give rise to the remaining sensation, and that is a very distressing one indeed; so severe, that it compels the patient to cry out, and is a sort of feeling women cannot distinctly define; nor can they therefore make you clearly comprehend it. It seems to be produced by the strong *muscular action* of the *womb*, and may, as to its cause, be of the same nature, though not of the same feeling as we experience in the *gastrocnemii* muscles, when seized with the cramp.

When the child's head enters the world, very great relief is obtained; some women say they feel as if they were in Heaven, or use other expressions equally glowing and emphatic. This cessation of the pains may be of brief duration only, or it may continue for ten minutes or twenty minutes; one or two strong pains afterwards supervening, and the body being expelled. In natural labour, as a general practice, after this expulsion of the head, it is always wrong for the accoucheur to lay hold of the child, and pull out the shoulders; he ought to suffer the natural efforts to expel them. The duration of the whole process, and particularly that of the second stage of labour, varies exceedingly, the child being expelled sometimes in a few minutes, sometimes after exertion of six, twelve, and twenty-four hours, or longer. Giving my attention almost entirely to the difficult forms of labour, I have not had much opportunity of remarking, in many cases, those indications which, in natural labour, foreshow its probable duration. I may observe, however, generally, that the more the previous children, the more speedily labour proceeds. *Cæteris paribus*, the larger the pelvis, the more rapid; the smaller the pelvis, the more tardy the delivery. Where the softer parts are relaxed, the delivery is facilitated; and where they are rigid, it is delayed. Much depends upon the efforts of the woman. In some women the efforts are sluggish; in others they are very violent. Much also depends upon the state of the os uteri; and if you find it wide open, thick, soft, and yielding, where a woman is of the ordinary size, and the womb is active, and there have been children before, the head descends quickly enough; but if the disc of the os do not exceed the breadth of a shilling, being thin, unyielding and contracted, then parturition is not so speedily accomplished.

Morbid Symptoms.—In the progress of labours, such as I have described, there are various morbid symptoms, not, indeed, of much importance, yet not to be overlooked altogether. When the child is about to enter the world, tenesmus is felt for a reason I explained to you yesterday, namely, in consequence of the bearing of the head on the sacrum, perinæum, and rectum. Micturition will also take place, principally, I suppose, from the pressure of the child's head on the neck of the bladder, and in the commencement of the labour; this requires no remedy, but you ought to leave the room occasionally. Cramps are likely to be produced from pressure on the obturator and sciatic nerves, and in a natural labour, an attack of the *cramp* is generally favourable; the child being sometimes born soon after the cramp comes on, as it occurs principally when the head of the child is rapidly descending. Again, in natural labours you have *vomitings* occurring during the first stage, and scarcely requiring a remedy. If medicine be necessary, the effervescing draught is, perhaps, the best. Four scruples of citric acid may be dissolved in four ounces of water, and five scruples of carbonate potass in four ounces of water, and a table spoonful of each of these when effervescing, may be given every quarter or half hour, till the vomitings cease. Very severe *rigors* and *shivers* are felt, with which, if you were unacquainted, you might be alarmed, women sometimes shaking as if they were in an ague fit. If this be followed up by symptoms of pyrexia, fever is to be feared if by severe pains in the head and abdomen, evidently not proceeding from the labour, then you may suspect that there is inflammation. If there be much flushing of the face, throbbings of the carotids, and the pulse high, you will have reason to apprehend that convulsions may supervene. In such cases, abstract blood; twenty, or five-and-twenty, ounces from the arm. These accidents, however, are rare: in general, where you have these symptoms, without the other signs of fever, inflammation or convulsions, they are not to be viewed as alarming, but as auspicious, as they seem to indicate that the labour will be active, and its termination speedy.

Having said thus much, Gentlemen, respecting the phenomena of natural labour, I had intended to pass on to the *duties* of the accoucheur, but as our time is expired, I shall reserve this till our next meeting.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE XIV.

On the Simple Supporters of Combustion.

GENTLEMEN,—We have now to examine a class of substances possessing very energetic powers of combination, with simple inflammable bodies capable of producing acids, and which, when submitted to electro-chemical decomposition, are attracted by the positive pole; they are therefore called electro-negative supporters of combustion, and are three in number, namely, *oxygen*, *chlorine*, and *iodine*.

Now, first, of *oxygen*, a substance of the greatest importance in vegetable and animal life, in the formation of water, and, in point of fact, recent chemical experiments have taught us that it forms, perhaps, nearly the one half of the substances of our globe. It was discovered by Dr. Priestley in 1774, and I mention this date particularly, because, although a number of factitious airs had been discovered, none of them had been found capable of supporting combustion; and you may judge of Dr Priestley's surprise, when he put a lighted candle into it, and found that it burned with greater brilliancy than before, and that a mouse which he put into it, lived three times as long as it would in any other gas. Dr. Priestley obtained it by heating the red oxide of mercury, and he found that the mercury returned to its metallic state, and that a quantity of gaseous matter escaped; this he collected, and found to be oxygen, or, as he called it, *dephlogisticated air*. It may be obtained by heating red lead and nitre in the same way, but the black oxide of manganese is the substance generally resorted to in the laboratory. If you wish to obtain the oxygen pure, you take the salt called chlorate of potash, and heat it to redness in a glass retort. You see the operation here going on; the salt is put in a powdered state into a retort, and when the retort is made almost red hot, the gas is given off in great abundance in a pure state, but the expense of this salt is the chief impediment to its use. For common purposes, you may obtain large quantities of oxygen from common salt when very much heated, but the gas not very pure. You will observe the mode employed for collecting gases in general; bottles are filled with water, and then inverted in a trough; as the gas enters the vessel, the water is displaced, and this is the way in which all these gases are collected, which are not soluble in water; but, for the collection of such as are soluble in that fluid, we employ mercury. This is called the *hydro-pneumatic trough*, and the whole of the apparatus is called the *hydro-pneumatic apparatus*, and we are chiefly indebted to Dr. Priestley for the mode of collecting gases in this way. If a large quantity of it should be required, we may use with great advantage a wrought-iron bottle, which may be put into the fire, and to the top of which a flexible tube may be attached by a joint; but when you wish to obtain oxygen for any nice purpose, you must use the chlorate of potash. Sometimes it is inconvenient to heat the oxide of manganese red hot, and then the gas may be obtained by distilling it with sulphuric acid; this is not, however, a very commendable process. You are to mix the oxide of manganese with the acid, and make the mass into the consistence of a thin paste, and apply your heat at first gently. Now, of course, in all these cases, the retort contains a quantity of common air, and therefore we generally suffer this portion to escape, and begin only to collect the gas, when we think it is coming over pure. Earthenware retorts are sometimes employed, as are also those of glass. Most of our glass is fusible, and melts readily, from containing lead, when exposed to high temperatures; but there is a sort of glass made at Newcastle without the oxide of lead, and therefore bears a very high temperature without fusing; but for ordinary purposes, we find the common glass retorts cased with a mixture of sand and clay to bear a very great degree of heat, without breaking or melting. You should be furnished with receivers of different kinds some of them should be furnished with stop cocks, and be graduated; you should also be provided with tubes of different sizes, nicely graduated and divided into 100 parts, if you wish to make any delicate experiments on the gases.

In subjecting gases to the action of electricity, we generally use a glass tube, with a couple of wires passing through it, and you will find that you can easily pass an electric spark through the gas. When great quantities of gases are to be collected, we use vessels of this kind, which are called *gasometers*. Here you see is a circular vessel open only at the bottom, and of a little less diameter than that in which it is inverted; this cylinder has a solid stem, which passes through a hole in the cross bar of the frame fixed to the top of the pail; it serves to steady the cylinder, and to indicate the quantity of enclosed gas, and the weight of the cylinder is counterpoised by a weight passed over a pulley. A tube furnished with a stop-cock penetrates the bottom of the pail or outer cylinder, and is continued to the centre, when it meets another tube coming from the top of the vessel, also having a stop-cock, and from the plan of juncture, a tube passes directly upwards through the middle of the vessel, a little above the level of its upper rim. Instruments of this kind are constructed upon an immense scale in our gas-works, where the carburetted hydrogen gas is prepared for purposes of illumination. Here is another instrument very necessary in the examination of gases, it is called a *gas-holder*, and a very convenient piece of apparatus it is. It consists of a circular copper vessel, which has attached to it a small pneumatic trough, from which a tube passes nearly to the bottom of the vessel. It should be made of copper, and not of tinplate: all your glass receivers should be ground to smooth surfaces at their openings, so that when you wish to close them, you may have nothing to do but to slide a piece of ground glass over the orifices.

Now, in order to judge of the purity of oxygen, a delicate operation is required, which will be afterwards shown; but for ordinary purposes, you need only to dip into it a heated wick of a taper, but without flame, and if it rekindles with a snap, you may consider that the gas is tolerably pure. It is a matter of great importance to the chemist, to determine the specific gravity of the gas, in reference to common air, and we arrive at a knowledge of this circumstance by weighing equal bulks of the two. Now, with regard to the specific gravity of oxygen, it is found that one hundred cubic inches weigh 33.75 grains, and assuming common air as 1., oxygen is represented by

1.232, so that you see it is a little heavier than common air; and, in relation to hydrogen, you will find that oxygen is nearly sixteen times heavier than it; and upon this supposition we found our numerical representation of the weights of bodies.

You have already seen with what splendour the oxygen supports the combustion of a taper. I shall now introduce some sulphur into the gas, which burns in the common air of the atmosphere with a dark blue flame. Having ignited the sulphur in the oxygen, Mr. Brande proceeded: you see that the combustion is very vivid, and that there is at the same time a combination of the sulphur with the oxygen, and an acid is formed called *sulphurous* acid. Now, although I believe that all attempts to explain chemical nomenclature in the lump must be erroneous, I may just mention here, that when oxygen enters into combination with the other supporters of combustion, or with the metals, two classes of compounds are formed, those which are not acid being usually distinguished by the termination *ide*, as oxides of chlorine, iron, and so on; and such as are acid, being known by the terms *ous* or *ic*, according as the relative proportions of oxygen, or either of the supporters of combustion, may exist in the combination. In the present case an acid is produced, called *sulphurous* acid, in order to distinguish it from those acids which contain a larger proportion of oxygen, and are therefore called *ic* acids. Now, there is a celebrated experiment, contrived by Dr. Engelhaus, to show the union of oxygen with the metals during combustion, namely, the introduction of a pin of ignited wire into a jar of oxygen, a great light is produced, and a great number of sparks thrown off, which are found to be oxides of the metal; and, in short, in all these cases of combustion of the metals, an oxide is formed with the oxygen and the ignited body. You observe the iron in a state of intense ignition; the drops of liquid iron, even after passing through the water, are hot enough to stick to the bottom of the plate, and the heat evolved generally breaks the jar in which the combustion is made, so that we generally select a cracked jar for the purpose. These experiments will suffice to show you the power of oxygen in supporting combustion.

The history of chemical processes will not form a predominant part of these lectures, as I suppose that it will be better to teach you here matters of fact rather than matters of speculation; but, at the same time, there are so many curious phenomena connected with combustion, that it will be well to mention to you, that the phenomena of combustion appear in all ages to have attracted great attention. The first explanation offered of combustion was by Jean Rey in 1630; he found, that having melted a quantity of tin of a certain weight, and having kept it in a state of fusion for some time, he ascertained that it had considerably increased in weight, and, reasoning upon these circumstances, he concluded that the air had a great deal to do with it, and that a certain quantity of air had entered into a fixed combination with the metal, and this approaches very near to the account I have just given you, namely, the fixation or union of the oxygen with the combustible body. When the air-pump was discovered, it was soon found that bodies would not burn without air; but Rey's experiments attracted no particular attention, until Hooke investigated the subject, and in 1677 published an account of his experiments, which are particularly entitled to attention, for the skilful manner in which they were conducted, and from their singular approach to modern discoveries. Hooke found that bodies would not burn without the free access of air, and he therefore calls the combustion of bodies their solution in the air. But he goes further than this, and he tells us, that there is only a part of the air capable of effecting that solution, and what is more remarkable, he tells you, that the part of the air so capable of solving bodies, is precisely the same as that which is found in a fixed state in saltpetre; which is nothing less than saying, that there is a part of the air capable of supporting combustion, which he therefore calls the nitro-ætherial matter of the air, exactly in the sense and application in which we now use the term oxygen gas. Notwithstanding that this explanation approached so nearly to the truth, little notice was taken of it, and a very different theory afterwards prevailed until the time of Lavoisier, by whom it was subverted. Stahl imagined, that when bodies burn, they throw off a peculiar principle, which he named phlogiston, and the theory was called the *phlogistic theory*; this phlogiston, he tells us, exists in all combustible bodies, and that on combustion and the formation of flame depended its separation; but this explanation of the matter was at complete variance with the facts previously established by Rey and Hooke, namely, the increase in the weight of bodies during combustion. Without entering further into detail, however, I may just mention to you that Lavoisier, about the beginning of the present century, established, by a great number of beautiful and correct experiments, a theory of combustion nearly identical with that of Hooke. He showed that oxygen is the leading principle which supports combustion, and that, during combustion, oxygen entered into combination with the burning body. This was called the *French theory*, and which until very lately generally obtained. Lavoisier said, that bodies never burned without the presence of oxygen, but we now know that combustion may take place without the presence of any oxygen whatever, and, indeed, without any gaseous body being present. Then there is the *electrical theory*, which I may mention, which has been lately introduced. Combustion may be, and probably is, connected with the electrical energies of bodies, as all bodies which act powerfully upon each other are in the opposite electrical states of positive and negative, and the evolution of light and heat may depend upon the annihilation of their opposite state, which happens whenever they so combine. So that you observe that here an analogy is attempted to be established between combustion and the bringing together of two opposite electrical states, and that combustion is nothing more than the annihilation of their two poles. The fact is, that we are little acquainted with the recondite operations of corpuscular philosophy, and we wish here merely to state general facts. Combustion cannot well be regarded as dependant upon any peculiar form of matter, but must rather be regarded as the result of intense chemical action. So much then, for oxygen and its general properties.

Now the next elementary body on our list is *chlorine*, which is a substance of a very different character from the preceding. It may be readily obtained by introducing a quantity of black oxide of manganese into a retort, and pouring upon it three or four parts of its weight of muriatic acid, and then applying heat. I shall not at present enter into the rationale of this process, because it is rather complicated, and it will be better explained by and by. One of the elements of the acid is evolved, namely, the chlorine, in a gaseous form. Now chlorine may be collected over water, but cannot be long retained in a vessel containing water, because it is slowly absorbed by that fluid. Chlorine is highly noxious to respiration, and therefore we do not allow any great portion of it to escape into the air of the laboratory; we put the apparatus under the opening of the chimney, to allow the first part of the distillation to pass off, and as soon as it begins to come over of a yellow colour we collect it. It is employed in immense quantities in the arts, and therefore it is the object of the manufacturer to supply himself with it as cheaply as possible; he therefore generally obtains the chlorine from a mixture of this kind; he takes eight parts of common salt, three of the black oxide of manganese, four of water, and five parts of sulphuric acid. The oxide of manganese and salt are mixed together in one vessel, and the acid and water in another, and then mixed carefully together. This is a very easy and economical mode of obtaining chlorine in large quantities, where it is not very necessary to attend to its purity; the residue of the distillation is sulphate of soda, or Glauber's salt, so that the manufacturers of the one are generally the manufacturers of the other. Now you see the gas is coming over very abundantly from the retort containing the muriatic acid and the black oxide of manganese; but I can scarcely caution you too strongly against its mischievous effects on respiration, for, although when largely diluted with atmospheric air it is true that, in persons of strong lungs, it may only produce little irritation, still I have known very serious consequences, inflammation of the lungs, and so on, produced by it.

It was discovered by Scheele, in 1774, in the same year in which oxygen was discovered by Dr. Priestley; but there is a curious part of its history relating to the discovery of its true nature, which I may be excused for introducing. Scheele called it dephlogisticated muriatic acid; he imagined that if he deprived muriatic acid of its phlogiston, he obtained this gas as one of its elements, and if you substitute for the term phlogiston, oxygen, which they seem to have meant by it, you will find that it presents you with not a very incorrect view of the nature of chlorine. Berthollet imagined that chlorine, or the dephlogisticated muriatic acid of Scheele, contained a large quantity of oxygen with the muriatic acid, and he named it, therefore, *oxymuriatic acid*, a term which was generally adopted by the French chemists. Sir Humphrey Davy afterwards found that it did not contain oxygen; he found that it was an elementary body, and gave it the appropriate name of *chlorine*, from its greenish colour, and whether it shall afterwards be found to be a simple, or a compound body, it may always retain the name of chlorine.

It has a very disagreeable smell; its taste is rather astringent; it supports combustion in some cases, with very great energy, and in others feebly. If you put a burning taper into a jar of chlorine, it burns very feebly and dimly; it burns with a reddish light, and is soon extinguished; on the other hand, there are other bodies which burn in it with great splendour, and in the next lecture I shall show you some instances of this kind, and explain the combinations of this gas with oxygen.

AN INTRODUCTORY LECTURE

TO A COURSE ON

ANATOMY, PHYSIOLOGY, AND SURGERY

DELIVERED BY

R. CARMICHAEL, Esq., M.R.I.A.

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Gentlemen, notwithstanding the unfavourable auspices, with which our school opened last year, from circumstances which I need not recall to your attention, it has prospered in a degree perhaps unexampled in the history of those establishments. This success we are not so vain as to attribute to our own talents as teachers, although with respect to my colleagues, they may undoubtedly lay claim to the merit of great assiduity, industry, and a strong desire to communicate and impress upon the minds of the pupils all useful information in their several departments. We have, however, great natural advantages, and to them I in a great measure ascribe the unparalleled success which this school has experienced —these advantages are the extensive and comfortable accommodation which this building affords to the dissecting class of pupils.—The abundant supply of subjects: the vicinity to the large hospital establishment of the House of Industry, an account of which was detailed in my Introductory Lecture of last year: the excellent library of the Richmond Surgical Hospital, to which the pupils of this school have access on the same moderate terms as those of the hospital. These, coupled with the unremitting attention of the anatomical lecturers and demonstrators, afford, I am bold enough to assert, facilities to the students of anatomy not to be surpassed in any part of the empire.

At the close of our summer course I inquired of three or four students from Edinburgh, whose indefatigable industry in the acquirement of anatomical knowledge, particularly attracted my attention, if they were satisfied with the accommodations and attentions they found at our school.—" Satisfied, Sir," said one of them, " that is too cold a term; we have been gratified beyond measure with the advantages which your school affords; and on our return to Scotland we should be unjust and ungenerous, did we not use every means in our power to make them known to our fellow-students." This is, word for word, what passed between us on this occason; and I must acknowledge, that I felt no inconsiderable degree of pleasure in finding we had made this impression on strangers. I disclaim any share in this eulogium: the anatomical teachers were entitled to it all.

The duties of anatomical and surgical lecturers require so much time and exertion to be performed as they ought, that we have deemed it advisable to call to our aid, in the surgical department, the able assistance of Mr. Alexander Read, well known to you as one of the senior surgeons of Mercer's Hospital; a gentleman whose long experience and excellent courses of clinical lectures sufficiently prove his ability as a surgical teacher. From him you will derive the result of extensive professional reading, sound sense, and talents for research of no ordinary description.—In thus increasing our number of lecturers we have only followed the example of the College of Surgeons. In doing so we express our approbation of the measure; although there are other measures of that learned body, of which we can not approve.

Since my introductory lecture last year, in which I could not but deprecate in strong terms some of the provisions of their charter; particularly that, which by making the necessity of an apprenticeship indispensable, compels at least nine-tenths of those students who receive their professional education in Dublin, to seek their diplomata of qualification to practice, in other colleges and in other countries. The publication of this lecture put the government and the public in possession of a seeming piece of corporation-monopoly and injustice, of which they were before ignorant.—I shall not say " what great events from trivial causes spring;" but so it was, that shortly after this lecture was made public at the request of the pupils, the college was suddenly convened; and under the plea that their legal advisers had lately ascertained that we were not authorized by the charter to receive admission fees from pupils and candidates, the draft of a new charter was submitted by a leading member of the college, in which it was provided, that apprenticeships should for the future be voluntary or optional; and that all pupils should attend to a system of education to be laid down in bylaws to be *afterwards* enacted. This proposition I hailed with pleasure, as lessening the evil of which I complained; but I contended, that it would be more to the honour of our body, if the system of apprenticeships was to be at once annulled, as it could only under the proposed charter be considered in the light of a dead letter, inasmuch as no person would have the folly to submit to the degradation of serving an apprenticeship at a considerable expense, if he could equally well enter into the profession without it.

The reply I received from the abettors of apprenticeships was equivalent to this: that it must be taken for granted, that it was the interest of the members of the college to encourage the old system of education; and that they had it in their power to do so, by selecting only such members as had served apprenticeships to fill the various situations of honour and emolument in their gift: those of president or vice president, examiners and professors. And the facility of executing this hopeful arrangement was illustrated by the fact, that our fellow-countrymen of the Roman Catholic persuasion are as effectually shut out of every corporation in Dublin by the all-powerful votes of the corporators, as if their admissions had been prevented by the laws of the land.—I argued, that if any line of conduct like this should be pursued, founded, as it must be, in selfishness and injustice the most sordid and gross, it would render the College of Surgeons a perpetual scene of bickering and animosity, caballing and machinations. That such an attempt would in the end decidedly fail; and therefore, that it would be better to remove at once the motive to foul play by blotting the word apprenticeship from our charter altogether.

No later than yesterday I heard one of the professors of anatomy of the College of Surgeons, in his introductory lecture, advocate the system of education by apprenticeship on somewhat novel principles. He contended that the services of the apprentice were of advantage to the master. This I am as willing to acknowledge, as that the apprentice-fee is also of some little use to him. But it does not appear to my narrow comprehension, from these facts, that consequently an apprenticeship affords the best system of education, and entails a reciprocity of benefits on the pupil. On this point, however, I was soon after enlightened, by the professor demanding of his auditors, if there were not many amongst them who held rank and situations in their profession, which they could never have obtained without the assistance of their masters. Now, this fact, thus inadvertently acknowledged, affords one of the strongest arguments, in my mind, that can be adduced against the system.—By it we learn that men are raised to situations, which from their own merit they never could have attained, without the influence of undue patronage. And how is this patronage acquired? By a bribe in the shape of an apprentice-fee; for which, under the present system, the seniors of the profession engage to overlook and discountenance merit, however pre-eminent, in all who have not purchased this favour by a timely douceur,

If the proposed charter shall be granted, I trust, that in the formation of the by-laws, nothing will be enacted that has not the true interests of society in view. It is for those ends we are chartered; and be assured, that on this important point, the interests of society at large, and the interests of the college and its members, are one and the same.

The formation of this code will, however, require a very sharp surveillance on the part of unprejudiced men, while motives like those to which I have adverted, are permitted by the most respectable individuals to influence their judgment. But it is a trite observation, that men in their corporate capacities will countenance acts from which, as individuals, they would shrink with shame or abhorrence.

Notwithstanding, however, the indecorous haste with which this proposed charter was passed, scarcely occupying one week from the time of its proposal until it became the adoption of the college, as if the very existence of that body depended on despatch, we have since heard nothing of its fate, although almost a year has elapsed: and I trust that it will either be sent back for reconsideration, or that the law officers of the crown will introduce some clause which will effectually prevent the effects of interested feeling in the formation of the by-laws; which otherwise may be so framed, as to mar the objects of the charter, and to pervert the most beneficent intentions of government.

Corporate bodies are too apt to pervert, from selfish considerations, the real objects which the legislature had in view in their incorporation. Thus, for instance, universities, which of all institutions ought to be the most free from the baneful influence of sordid principles, *combine,* to the manifest detriment of science and progress of knowledge, in refusing to admit as testimonials of qualifications certificates of attendance upon private or public lecturers, no matter how high their pretensions or character may stand. I allude particularly to the regulation by which attendance upon public or private lecturers, not belonging to universities, is rejected as a qualification for medical degrees. The best criterion of a professor's talents, were the market fairly open, would be the number of his pupils; and were it so, there are many men who now lecture only to a discerning few, who would have more auditors than they could well accommodate; while on the other hand, there are many professors, lifted by patronage into their college chairs, who would display their eloquence to empty benches, were they not filled by constrained and unwilling pupils.

Thus monopoly prevents the benefits of competition. But it is unnecessary to suggest, in how many ways such a state of things must retard the progress of knowledge. The following circumstance will evince how detrimental this combination of universities is to the cause of science :

In May last the College of Surgeons required its court of examiners to suggest a plan, by which its school might be rendered more effective. The following is the reply of the court respecting the utility of establishing additional professorships :—"The necessity," says the court, "of establishing distinct professorships of chemistry, botany, medical jurisprudence, and comparative anatomy, has been proposed to the consideration of the court, and they are of opinion, that such professorships would tend to the advancement of medical science in this country; but as their tickets would not be esteemed as valid qualifications for medical degrees, they apprehend the professors would not be attended by sufficient classes to warrant their establishment."

These professorships were of course not established ; but here we have recorded by the court of examiners of the College of Surgeons in Ireland, their conviction, that it would be useless to institute in this body, professorships on the important subjects above mentioned, because tickets of attendance on such lectures would not be esteemed valid qualifications for medical degrees, and that, consequently, the professors would remain without classes, as the pupils, whose object it is to obtain medical degrees, would be forced to attend the professors of the university—no matter what their share might be as teachers in their respective departments.

Since Universities and Colleges of Physicians refuse to acknowledge the certificates of attendance upon lectures delivered at Colleges of Surgeons, the latter have it in their power to return the compliment, and reject those of the former. This, however, I should regret to witness, as it would be the commencement of a state of hostility, which would inevitably tend to the injury of science, and reduce the respectability of both branches in the estimation of the public.

The time is not far distant, however, when those contending bodies will find it their mutual interest to unite, and form a conjoint faculty of physic and surgery, such as exists at present in almost all the large cities of Germany and other parts of the Continent.

It is usual in an introductory lecture to a course of anatomy and surgery, to occupy the time of our hearers by some disquisition on the animal economy; which must be so general in the period allotted for a lecture, that little utility can result from a compliance with this established custom. I shall therefore prefer making some pathological observations, particularly on diseases but little understood, with the view of more advantageously occupying your time.

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A consideration of the most frequent causes of diseases might be of use to the moral philosopher, as it would tend to support the position, that in most instances ill health is occasioned by our own imprudence, and the unwarrantable gratification of appetites and passions, which were given for a wise and benevolent purpose. But an objection may be started to this position in the too frequent circumstance, that infants come into this world weak, and decayed, and with the rudiments of disease so engrafted in their original organisation, that they are sufferers as long as they exist, without any fault of their own. This objection, which to a heedless observer might seem to support the supposition, that the beneficent Creator of the universe is careless of the happiness of his creatures, and wantonly brings them into existence only to suffer misery, is ably answered in the following passage of an unpublished essay of the celebrated Mr. Combe. "The first organic law is," says Mr. Combe, "that the germ of the infant being must be complete in all its parts, and perfectly sound in its condition, as an indispensable requisite to its vigorous development and full enjoyment of existence. If the corn that is sown is weak, wasted, and damaged, the plants that spring from it will be feeble, and liable to speedy decay. The same law holds in the animal kingdom; and I would ask, has it hitherto been observed by man? It is notorious that it has not. Indeed its existence has been either altogether unknown, or in a very high degree disregarded, by human beings. The feeble, the sickly, the exhausted with age, and the incompletely developed through extreme youth, marry; and, without the least compunction regarding the organisation which they will transmit to their offspring, send into the world miserable beings, the very rudiments of whose existence are tainted. If we trace such conduct to its source, we shall find it to originate either in animal propensity, intellectual ignorance, or more frequently in both. The inspiring motives are generally mere sensual appetite, avarice, or ambition, operating in the absence of all just conceptions of the impending evils. The punishment of this offence is debility and pain transmitted to the children, and reflected back in anxiety and sorrow on the parents. Still the great point to be kept in view is, that these miseries are not legitimate consequences of observance of the organic laws, but the direct chastisement of their infringement. These laws are unbending, and admit of no exception; they must be fulfilled, or the penalties of disobedience endured."

One of the most frequent misfortunes under which those wretched beings suffer, who thus come into the world with the seeds of disease interwoven in their very constitution, is *that* congeries of symptoms generally comprised under the name of scrofula. This disease is supposed to be hereditary, and no doubt it is so far inherited, as that a debilitated and sickly parent is capable of conveying the disease of scrofula to his child, no matter whether he has laboured under it himself or not. The organs of a child so constituted are incapable of carrying on their appropriate functions. Digestion, assimilation, absorption, and the other animal processes, soon become impeded, and symptoms of dyspepsia and those local signs of a general disorder, (a condition usually indicated by this term of scrofula,) make their appearance.

But again we find that the healthiest children of the healthiest parents, exposed to certain causes, such as poor acescent diet, bad clothing, a damp or vitiated atmosphere, and privation of that exercise so absolutely, and above every thing else, necessary to preserve the health of children, produce precisely the same symptoms as those that are found to arise in the class of children above mentioned, who are born of sickly or debilitated parents; a fact of which I gave abundant evidence in my Essay on Scrofula, published in 1810, and which my subsequent observation has thoroughly confirmed.

The common cause of the disease between these two classes of children—the one in general the offspring of the rich and opulent, the other of the poor and wretched,—*is imperfect nourishment*; in the one class produced by an organisation incapable of assimilating the most appropriate aliment, and in the other, by a description of aliment unfit for the wants of a child, who, though born healthy of robust parents, yet is rendered weak and sickly by the exciting causes above detailed.

I have observed that those who have been afflicted with scrofula in their youth, are, in the decline of life, more than others subject to that dreadful class of diseases termed carcinomatous; but from this circumstance I by no means would infer that there is any identity between the two diseases, scrofula and cancer;—all I would insinuate is, that there is a predisposition in the same persons to these diseases, but at different periods of life.

In the class of carcinomatous diseases, I would not only include that morbid structure known by the name of cancer, but that heterogeneous mass termed fungus hæmatodes, or medullary sarcoma—osteo sarcoma,—the various tubercles which occur in the lungs and other parts, of a semi-cartilaginous appearance,—tubercles of the liver of a medullary character, those large masses which form in the cavity of the abdomen and elsewhere, named by Doctor Baron tuberculated accretions,—and the various hydatid tumours to which all the mammalia are liable in every part of the body.

It is upwards of one-and-twenty years since (as it was esteemed by many of my professional friends) I had the misfortune, in a small essay published in 1806, to espouse a doctrine first promulgated by Dr. Adams,—that cancerous tumours possessed an independent vitality. In the second edition of that work, I extended the same doctrine in explanation of the origin of tubercles of the lungs; and I am at present disposed to press the doctrine still further; being of opinion that the various morbid growths I have just detailed, owe their origin to the same cause, and may be considered in the light of parasitical animal fungi, which draw their support from the parts in which they grow, by their own internal powers, and not from any extension of vessels belonging to the animal which affords them a nidus. I entertain this opinion of the nature of carcinomatous diseases, not only because it accounts satisfactorily for all the phenomena of these maladies, but because cancerous tumours are frequently found to approach, in a remarkable manner, to the form and character of hydatids, which are allowed to be parasitical animals, possessed of independent powers of growth and reproduction.

Since the publication of the work alluded to, I have had ample experience of these diseases, probably equal to that of any practitioner in the empire; and that experience has the more strongly confirmed my mind in the opinions I so early formed respecting the nature of those maladies; and I find that the profession is, since that period, somewhat more reconciled to a proposition which, at its first announcement, naturally gave a great shock to the prejudices of the day. * * * *

In my second edition on Cancer, published in 1809, I stated, page 426, and in several other passages, my conviction that cancerous patients are in general affected with tubercles in the lungs, and that those tubercles are composed of the same hard, cartilaginous substance as cancer of the breast or other parts; and this fact I have since repeatedly witnessed and demonstrated to many of my pupils, giving them an opportunity of comparing the structure of the one with that of the other in different subjects, and often in different parts of the same subject. If this statement had been known to Doctor Baron, I have no doubt that he would have noticed it, as affording so strong a support to his opinions.

I have met with a vast number of morbid dissections which support the doctrine of independent vitality, not only with respect to tubercles of the lungs, but to those extensive masses unlike any natural structure, which form on the peritoneum, and distend by their increase the entire cavity of the abdomen. In one of those instances the cavity was filled by a solid mass, of a greyish colour, and gristly consistence, into which no vessels could be traced after the most minute injection. In the midst of it the intestines retained their natural situation, while the foreign substance grew around them, and gradually enveloped them in its increasing volume. The most remarkable instance, however, which has come to my knowledge, I found on examining the body of a lady about forty years of age; she had been a patient of Drs. Jackson and Clarke, who were present at the dissection. The abdomen was distended to a degree that few would think it capable of reaching. It was supposed, when the swelling first commenced, that the lady was pregnant; however, having passed the time of parturition, and the swelling every day increasing, it was attributed to ovarian disease. At the time of her death it had existed, as well as I recollect, upwards of two years. I first punctured the parietes with a trocar, but no fluid escaping, the cavity was laid open, when it disclosed an enormous mass of hydatid tumours, containing a substance like firm jelly; the largest of these exceeded a moderate-sized melon in bulk, and the smallest were rather less than peas; between these two sizes there was every variety of magnitude; around the parietes, groups of small-sized transparent hydatids were chiefly to be found; the intestines were compressed against the spine by these congregated masses, while the liver was so much absorbed by their pressure, that it did not appear to be one-fourth of its natural size. When the entire mass was removed, it almost filled a moderate sized washing tub.

This account I give from memory, having lost the notes I took at the time; the facts, however, are well known to Drs. Jackson and Clarke, who witnessed the progress of the disease, and attended the dissection. Can any person be so wedded to received dogmata, as to believe that this enormous mass, which commenced and increased without a symptom of inflammation, was in any degree owing to that process?

From the facts and views I have laid before you, you will be perhaps inclined to agree with me, that the class of diseases depending upon parasitic animals contain many species; the class (if these views are correct) may be divided into two genera; the first genus may include those animals which are capable of locomotion, such as the different species of intestinal worms; and it is even doubtful if we are entitled to place the tape-worm in this class, as we are uncertain whether it or its parts are capable of locomotion.

The second genus may contain—1st, hydatids, which evince powers of motion by a forcible expulsion of their contents when punctured, and carcinomatous tumours, which contain cavities endued with a similar power;—2d, those masses, unlike any natural structure, whose organisation is so low, that they do not evince any degree of motion, and are denominated, from their appearance, carcinomatous tumours, tubercles, tuberculated accretions, and medullary sarcoma.

The observations and experiments of Drs. Baron and Jenner which I have stated, explain the causes of the variety of structure found in these masses; this variety is what might be expected.

The diseased structures we have been considering may truly be termed animal fungi; and their independent vitality is chiefly inferred from the circumstance of their having no connexion, by means of vessels of any description, with the parts in which they are lodged, and from which they must therefore imbibe their nourishment by a power inherent in themselves. It may be urged against this doctrine, that I infer the independent vitality of a shapeless mass of animal matter, merely because I cannot in any other way account for its production; the experiments and observations, however, of Drs. Jenner and Baron, on rabbits, show that similar masses are formed by the gradual changes which hydatids undergo. We are not to expect in these parasitic fungi that degree in equality of organisation which an independent animal, not parasitical, possesses; and yet the organisation of the water polyp is so low, that it consists merely of a pulpy substance without vessels of any description, which imbibes the surrounding water (it is supposed by capillary attraction) into the little cavities of its tissue, and when these cavities are filled, expels it again by a continued exhalation. Thus absorption and exhalation are the only vital actions of this lowest-admitted grade of animals.

The views I have taken of the nature of this extensive class of diseases, not only afford a satisfactory explanation of their phenomena, which, under any other adduced, are totally inexplicable, but also point out *under what circumstances* we may rationally expect to remove any of the number; and *when* our efforts can serve no other purpose but to aggravate the miseries they were intended to relieve. * * * * * *

After a tolerably extensive experience of cancerous diseases, I have no hesitation in asserting, that the middle and upper classes of society are by many degrees more liable to their attacks than the lower order, who are obliged to labour for their bread, and who seldom, at least in this country, with all their exertions, can obtain more than is sufficient for a mere subsistence on the most scanty and simple nourishment. To these causes active exercise, and moderation in food, are they probably indebted for their being less molested by the maladies under consideration. Women are most subject to cancer in the breasts and uterus, and at that period of life (between 40 and 50) when first these organs undergo such natural changes as render them unfit for their respective functions, and when we may naturally suspect that a diminution of vitality takes place in those parts, now become useless appendages to the system. The period of predisposition may, however, be anticipated by such external violence as may injure their organisation.

When the disposition is very general, many parts of the body may be affected at the same time. One instance I shall never forget: the patient was an old gentleman whom I saw some years back in consultation with Mr. Macklin; he seemed so generally affected with cancer, that large fungous masses of cartilaginous hardness projected from each of his cheeks, from his lower lip and chin, and from various other parts of his body. In the vegetable kingdom, an aged oak overspread with parasitic fungi imperceptibly sapping its powers of life, would furnish a parallel instance of this class of diseases.

In the great majority of cases, when cancer is seen in any one part, the disposition to the disease is general, so that to attempt to cure the patient by amputating the affected organ, must necessarily fail of success. If however the disease occur in a healthy person, and not in one of a pale leucophlegmatic appearance, and that it can be readily traced to external violence, we may with great confidence have recourse to operation or other means deemed capable of removing the disease. It is an axiom in surgical works, that the operation may be undertaken for the removal of cancer of the breast, provided it does not adhere to the parts underneath, and that the lymphatic glands in the neighbourhood are not affected. From this position however I *decidedly dissent*; for if the patient appear constitutionally disposed to the disease, which a pale leucophlegmatic countenance, and the spontaneous origin of the complaint, may sufficiently indicate, I am satisfied that operation will only inflict additional misery on the sufferer, without retarding in the least degree, but rather hastening, dissolution.

From the views I had taken of the nature of cancerous complaints, I was induced to use the different oxides of iron, which have the power of destroying worms and other animals of the lowest order.—Where the disposition to these diseases is general, nothing, it is obvious, can cure them,—nothing stop their progress; but when the diseased mass is of small extent, as is sometimes met with in the breasts, and frequently in the face, it will often yield to these ferruginous preparations; and I can confidently aver, that there is no class of medicines which have stronger powers in relieving the characteristic lancinating pains of carcinomatous diseases.

If then these diseases do not admit of being cured when the disposition to them is general, we may well be excused for entering on an inquiry that then becomes important: what are the most likely means of protecting mankind from the attacks of those dreadful maladies?

This is not a question easily answered, but some approaches may be made to its solution. I have already observed, that women are more subject to those diseases than men, and that the middle and upper classes of society, who live full, and use but little exercise, are more prone to them than the lower or working classes; particularly those who labour in the open air. The comparative exemption of the latter is, no doubt, owing to their simple and restricted diet, coupled with habits of laborious or active exercise, which occasions a rapid expenditure of the materials of the body, and an immediate demand for more, owing to the acuteness of the sensation of hunger. The high state of activity of their digestive organs at the same time enables them to supply a healthy chyme to replace the exhausted materials, provided that their nourishment be wholesome. The consequence is, that the entire frame is in the most healthy state, every organ performs with energy its allotted function, for every portion of the body is endued with its due portion of vitality.—No accumulation of half animalized particles is found in the system fitted to afford a nidus for the growth of parasitic fungi, such as we may presume to occur in the bodies of the indolent, the voluptuous, and the intemperate, who gorge their stomachs to excess with a variety of the most nutritious diet, without possessing the powers to digest it.

If these observations are founded in truth, it is apparent that we bring these dreadful punishments on ourselves, by infringing on the laws of organic life, and that therefore our best protection against those maladies consists in habits of active exercise, conjoined with moderation and simplicity of diet.

I have considered two only of the melancholy catalogue of diseases which we entail upon ourselves by inattention to those laws; both of them disgusting in themselves and degrading to the pride of man, for he is liable to them in common with the lower animals.

But between these two extreme links, how many others fill up the long chain of painful, humiliating, and loathsome maladies, — the penalties of our inattention, and perhaps guilty recklessness with regard to the laws which govern organic life.

It may be objected, that as man is not destined to be immortal, diseases must necessarily form a part of the divine arrangement, as the means of removing him from the earth. To this I reply, that numberless examples have occured of the protracted duration of human life accompanied by perfect and unremitting health, from birth to extreme old age, when natural death takes place, the organised system being completely worn out: and ample proof has in all ages and places been afforded, that the corporeal frame of man is so constituted, as to admit the *possibility* of his enjoying organic health and vigour during the entire period of a long extended life. It would be impious to suppose, that the benevolent Creator sent beings into this world only to be tortured. "Health and vigour," as Mr. Combe says, "cannot result from infringement of the organic laws made by the Creator, for then pain and disease would be the objects of these *laws*; and beneficence, wisdom, and power, would never be ascribed to the Creator who had established them."

As pain and disease are then the consequence of infringement of the organic laws, and not necessarily the lot of human beings, let our mode of life be less artificial, and more in accordance with the institutions of a benevolent Creator,—then, and not until then, will man be exempted from the long catalogue of miseries which by his inattention to those laws he had accumulated on himself.

It is not to be insisted on in the present advanced state of society, which requires the division of labour, and the exercise of so many arts, that the comforts and luxuries of civilized man need be curtailed by the abandonment of any of them, with a view to the preservation of health.

We may all, however, in our several vocations attend more closely than we at present do, to the laws already so often adverted to; and by so doing we shall incalculably add to our own peace and felicity, and furnish an example to others, which in these times, so remarkable for the subversion of false principles, the progress of truth, and the cultivation of morals, must tend in no inconsiderable degree to the prevention of misery, and the increase of human virtue and happiness.

FOREIGN DEPARTMENT.

CASES OF MALFORMATION OF THE FEMALE GENITAL ORGANS.

BY PROFESSOR F. ROSSI.*

CASE 1.—*Absence of the Vulva*; *Pregnancy, and Natural Delivery.*—A woman felt very violent pains in her abdomen, which were attributed to simple colic, on account, as we shall presently show, of the complete absence of the vulva, which rendered the existence of uterine pains, announcing an approaching delivery, improbable, although she was married. Professor Rossi, having attentively examined the patient, found that she had *no trace* of the external organs of generation: the pubes were completely void of hair, as in girls not arrived at puberty. This unusual arrangement leading him to think that these pains might be the result of the retention of the menstrual discharges, the existence of pregnancy appearing impossible, M. Rossi examined the rectum, and decided on making an incision about three fingers' breadth in length, in the natural direction of the vulva and vagina. M. Rossi was greatly astonished on finding, by means of his finger, which was introduced into the depth of the incision, the sac containing the waters passing across the opening of the neck of the uterus, and which shortly after gave way. The head of a fœtus was observed, which the power of nature only was sufficient to expel, with its appendages; it was of the male sex, and lived six hours.

An inflammation of the womb took place after the delivery, which quickly decreased, and an abscess in the neighbourhood of the parts was obliged to be divided, to admit of the passage of the fœces. The milk fever ran its accustomed course, and was not more violent than usual. The aperture made in the direction of the vagina, was kept open by means of a tube, which was distended with air after its introduction, so that this accidental canal served to admit the penis; this is, in fact, what happened; for the same woman was delivered a second time, by this new passage, two years after.

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* Archives Générales. Oct. 1827.

As it was impossible that conception could take place without sexual intercourse, questions were repeatedly put to the husband, and the opening in the rectum was attentively examined; they discovered within the anus a narrow orifice, capable of admitting a very small sound, and which communicated with the artificial canal which was made by the bistoury; this was, no doubt, the passage in which conception had taken place.

CASE 2.—*Absence of the Vagina, which was replaced by a very narrow Canal*; *Pregnancy*; *Natural Delivery.* — Pauline Arduino became pregnant, although the vagina did not exist; the remainder of the external parts of generation presented the natural arrangement. Professor Rossi examined this woman, and found a single narrow opening, communicating from above downwards with the opening of the uterus, and which served, at the same time, for the flowing of urine: the vagina was thus found to be completely obliterated, to the extent of four fingers' breadth. An incision was made in the direction of the vagina, and the fistulous opening which existed before being enlarged, the delivery was terminated; the child, of the female sex, and well made, was of the usual time.

Before the operation, the external genital organs consisted of two labia covered with hair, and the external opening was situated exactly at the place where the meatus urinarius is situated in the natural state. When the membrane which formed the depth of the sulcus, resulting from the approximation of the labia majora, was divided, the clitoris and the labia minora became uncovered, which were situated at the entrance of the vagina—*et aliquantum in vaginæ textum protracta.* The urethra was entirely wanting, so that the neck of the bladder, protected in other respects with a contractile sphincter, opened immediately at the anterior part of the vagina, which was obliterated in front: this obliteration seemed to result from the extraordinary development of the cutaneous fold which constituted the fourchette, and not of the hymen.

CASE 3. — *Vagina incompletely obliterated.* —In the third case, Professor Rossi relates the history of a young girl, in whom the vagina was merely obliterated, and which was only incompletely re-established by the operation performed on this occasion, so that some time after, and when this young girl was eighteen years old, a second operation was performed. Professor Rossi, who operated this last time, soon discovered that all the symptoms which had existed for so many years, were occasioned by the difficulty of passing the menstrual discharges, on account of the almost complete obstruction of the vagina, with deviation of the urethra. This malformation was quickly cured, and this young woman recovered perfect health, with the free passage of the menstrual discharge.

FEVER AT MADAGASCAR.

We perceive, from an article in a French Medical Journal, that *quinine,* and quinquina, are considered as an infallible cure for the fever which prevails so extensively during the winter at Madagascar. The conditions on which it must be given with any chance of success are the following:—

1st. That it be given during the intermittence;

2d. That one ounce of the quinquinæ be administered, and ten grains, at least, of quinine;

3d. That this be administered between the end of one paroxysm and the beginning of another.

SPONTANEOUS SEPARATION OF THE ANTERIOR PORTION OF THE INFERIOR MAXILLARY BONE.

BY DR. GAMBINI, OF PAVIA.*

Castagnoli Maria, 25 years of age, entered the Civil Hospital on the 20th September, 1824, for extensive caries of the inferior maxillary bone, from a scorbutic affection which had existed a long time. A large swelling in the course of this bone was observed; the gums were swollen, fungous, ulcerated, and bled on the least touch; the teeth which remained were either loose or carious; several alveoli were exposed, and a fœtid sanies discharged from the mouth; the patient presented all the characters of a general scorbutic affection. The process of throwing off the bone was left to nature, and the treatment consisted in the administration of the anti-scorbutic wine of Milman. The use of a simple gargle of barley-water and mel rosar, and a vegetable diet were ordered. Several teeth were extracted to facilitate the escape of moveable scales of bone, which was followed by a sensible amelioration.

It was observed for a long time that a large portion of the alveolar arch, which was entirely laid bare, became more and more moveable, and its separation was hastened by moderate tractions made with the forceps; lastly, on the 26th of November, the extraction was effected without much resistance or great pain, when it was discovered that the whole of the anterior portion of the lower jaw had been taken away in this portion of bone, which was verified by a careful examination of the bone. The hæmorrhage attending this extraction was not great, and cold water was sufficient to stop it. The anti-scorbutic wine was omitted for some days, because it irritated the interior of the mouth, and a common gargle was substituted.

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* Annali Univ. de Med., February and March, 1827.

At the end of five days the patient was considerably improved; the gums were entirely cicatrised, and did not present any trace of fungous growth. On the 12th of December the patient was discharged, quite cured.

ROYAL INFIRMARY, EDINBURGH.

Introductory Lectures of the Professors of the University.—Present State of the Surgical Wards and Theatre of the Hospital.—Operations performed since the opening of the Winter Session.

These discordant themes have been grouped together, more from their coincidence and temporary interest, than from any natural connexion between them: and as some of them have excited much attention, and others looked upon as prophetic of future changes in the regulations of our school, they have been selected, in preference to other topics, for observation; while public feeling, which enforces remark by its power, seconds the objects of discussion.

You need not be informed, that the introductory lectures of University Professors are usually recited without the slightest alteration, during the life of the authors; such discourses constituting a species of literary evergreens, over whose tints time would seem to have no influence, being often found in the same state of unchanged and perennial bloom at the end of half a century, as on the first day of their florescence. Universities, indeed, are not the most favourable localities for the development of novelty in those views of education which generally make up the basis of these annual harangues, and which are now spreading so widely; for the professors of such institutions being bound down to some favourite system, and pledged by personal motives to represent it, at all times, as the best that can possibly be invented, they are necessarily confined within the limits of a double obligation, which they cannot, with consistency or safety to their own interests as teachers, attempt to transcend. Embarked, in some measure, in a common cause, the individuality of each would seem to be absorbed in association, and the mind which might operate unfettered in the freedom of fearless singularity, is confined to the unity of purpose, and sheltered under the protection of combined authority. Aware of the omnipotent laws of necessity, under which such discourses must in general be composed, I went to hear those of our University recited, with few expectations of witnessing the delivery of any new doctrines on medical education, and certainly with none of seeing a single proof of the old ticket-system removed by any rebellious hand of the conclave. In one point only I was deceived in my calculation, a slight alteration having been made in the contents of their portfolios since last season, owing, as I supposed, with many others, to the presumed intentions of the Royal Commission. From the importance attached by each of the Professors, in their monographs of the present year, to classical knowledge, and the manner in which they insisted on its profession by the medical student, it is by no means improbable that the subject has occupied much of the attention of the "Royal Referees," between the Town Council and the *Senatus Academicus*, or that such at last is the impression on the minds of the latter, who have as keen a perception of coming events as the most accomplished speculator "on 'Change." From Dr. Duncan, jun., on whom the exposition of the University system of education has been, in particular, devolved, down to Dr. Monro, whose introductory discourse might be said to be stereotyped, having preserved its form inviolable through a succession of three generations, each member of the faculty prefaced his lecture by an intimation of the strict demand which would be made on the classical acquirements of the future candidates for degrees in the University. From the tendency of this threat, it may be inferred, that the report of the Commissioners will contain a recommendation or positive injunction for the extension of the preparatory education of the graduates in medicine in the Scottish Universities, which will thus, at length, be compelled to realize the old classical adage:

> "Nunquam sera est ad bonos mores via."

From the University to the Hospital, though the distance is but the breadth of a street, the transition excites that species of embarrassment which one feels on having to communicate improbable truths; and in attempting to describe the present state of the surgical wards of that establishment, I almost despair of securing belief in my affirmations; for, to make the representation true, is to render it at the same time incredible. I shall, therefore, most willingly forgive all who withhold their assent from my assertions, since none but those who have witnessed the total annihilation of all the means of improvement in this department of the institution, can form the most distant conception of the deplorable state to which it is reduced, or of the inefficient manner in which the business is here conducted. In fact, the surgical wards are now reduced to the last stage of inutility, it being, I think, impossible even for human ingenuity to render them more unprofitable to the student. Under the best system of clinical policy, the multitude by which they are crowded daily, would make the acquisition of pathological knowledge by personal observation, a matter of some difficulty; but when to this inconvenience the neglect of arrangement is added, the consequences may be more readily comprehended than expressed. When a case of an acute kind now occurs, which does not often happen, the subject is immediately transferred to one of the closets, and the key to the nurse's pocket, until the arrival of Dr. Ballingall, or one of his colleagues, when, amidst the confusion of the crowd struggling for admission, he makes his way to the door, and having effected an entrance, he informs the gentlemen, through the keyhole, that indeed there is nothing to be seen, and that they will hear the report read by the clerk outside. The pretext for this petty exclusion is rarely justifiable, by the supposition on which it has been founded, that perfect quietude is necessary for the patient, since he would be as much annoyed by the presence of ten as of ten thousand; and surely, if reports were a substitute for the observation of disease, the student might readily furnish himself with a greater abundance of them, as well as of a better kind, and at a cheaper rate, in his chambers, than those which are drawn up and read for him in the Royal Infirmary. The few, however, who do force a passage to the bed side of the patient, can derive but little advantage from their studious perseverance, not a single remark being ever made by the surgeon on the occasion, and the reports at present being very imperfectly executed. Even the medicines ordered, are dictated in so vague a manner, and in so low a tone of voice, as if exclusively intended for the clerk, that one-tenth of the pupils never can collect the alterations made in the treatment at each visit; and as to consult the journal on the subject—were a twentieth part of them to do so, the time spent in waiting for a perusal would be sadly bartered for the information obtained. Consultations are, of course, as their nature implies, always kept secret from the students, the four surgeons betaking themselves to some closet or other, instead of expressing their sentiments in an open manly manner before the pupils; but surely, if these deliberations are worthy of being acted on in cases of life or death, they should not be concealed, out of timidity, from the class; for it is not in the abstract result, but in the grounds, of these practical opinions, that the student is really interested. Turn from the wards into the theatre, and the proceedings there are involved in similar obscurity; a crowd of classless lecturers, loungers, &c. from Surgeon's Square, and of superfluous assistants, depriving the spectator of every opportunity of witnessing the several steps of an operation with any degree of satisfaction. On a late occasion, I saw no less than four persons performing a simple operation of removing a portion of the lower eye-lid; Dr. Hunter held the scalpel, Dr. Ballingall managed the forceps, another doctor was keeping the incisions visible with a sponge, while Dr. Campbell was spread out, eagle-like, over the whole, ready to pounce on an artery with an armed tenaculum; the entire group forming a caricature on operative surgery, which the extravagance of Cruikshank could scarcely improve. The theatre itself is almost a positive preventive against the attendance of any individval who values the "exterior man," such is the filthy state in which this repository of dust and cobwebs is kept. A petition to the surgeons on the subject was drawn up by some of the pupils; but whether it has been presented, or with what effect, I have not learned. Dr. Cullen, who has some perception of the slovenly manner in which the whole business of this part of the house is conducted, and seems well-inclined to have abuses reformed, alluded to the shameful manner in which the place was kept, on a late occasion; yet it still continues in its former state of hostility to clothes and cleanliness. Another novelty is, the confining of morbid parts removed in the theatre, to the inspection of Mr. Russel's class; Dr. Ballingall positively having refused to send round a tumour to the spectators, lest it should be spoiled by handling (!) before its exhibition at the clinical lecture, and obviously at Mr. Russel's suggestion. It would, however, be much more in taste with that gentleman's years, character, and experience of the wants of the students, to see that the preceding abuses were removed, than to puff off his lectures by such artifice, to palliate the operative blunders of his colleagues, or to preach at Scotus, as he has been in the habit of doing in his late introductory discourses.

The operations in the house, since the commencement of the session, have been few, and, except in their consequences, unimportant. The first of these was performed for the removal of an untractable fungus on the outside of the lower part of the thigh. The disease commenced during the cicatrization of an extensive burn, and in external appearance, though not in structute, resembled genuine cancer. The fungus and entire eschar were removed by two incisions, including the morbid parts, to the extent of about five inches in length and three and a half in breadth, and carried down to the muscles, which were quite as exposed as in a dissection. The wound has so far healed and contracted in a natural manner, except that the granulations have assumed too dusky a red for the healthy standard. The great loss of substance, and the mobility of the subjacent muscles, may, perhaps, subject the new cicatrix to future ulceration, if not to the reproduction of the former disease. The other two operations were performed for the removal of a melanose tumour, situated between the roof of the orbit and the eye-ball, and of a cancerous disease in the lower eye-lid. Both these patients having been attacked with erysipelas, their cases, and the circumstances attending the operations, shall be reported at full length in the ensuing week. Janet Lumsden, whose case was detailed in a former Number, was dismissed the house on the 11th ult., without any decision having been come to on the nature of her disease. Frictions of iodine ointment on the tumour were tried for some time, but without producing any appreciable effects in diminishing the complaint, and she left the hospital much in the same condition as when admitted, except some improvement in her general health, and a cessation of the hæmorrhage.

Edinburgh, Nov. 27. SCOTUS.

Fatal case of Erysipelas supervening on the removal of a Tumour from the upper Eye-lid.

THE subsequent is one of the two cases of erysipelas, which have followed the operations adverted to in a former communication. Both these cases have ended in death on the same day, and are singularly remarkable for their coincidence of result in two strong healthy subjects, and for the similarity of the exciting cause being produced by the removal of comparatively trivial diseases, from almost the same anatomical situation. They are also strikingly demonstrative of the liability of every species of wound to be attacked by erysipelatous inflammation in the wards of the Royal Infirmary, where the performance of the most trifling operation, from whatever cause, is attended with danger. Though their termination might be attributed, and perhaps correctly, to some local influence of this kind, or to one of those obscure peculiarities of consitution, which, even with the most judicious management, often renders the use of the scalpel hazardous on the scalp and its vicinity; justice demands the reluctant observation, that the manner in which these operations were performed, was but too well calculated to bring such constitutional tendency to erysipelas, did it really exist, into action; and that the treatment in the commencement was imbecile and temporizing in the extreme, the time when interference of art might have proved beneficial, being suffered to pass unemployed.

James Mackintosh, aged 34, was admitted on the 12th of November, for a tumour situated between the ball of the eye, the roof of the orbit, and the superior palpebra. The eye was partially closed by the pressure of the tumour on the upper lid, which being slightly inflamed and placed over the dark substance of the tumour, was of a dusky purple colour. The tumour was perfectly moveable by the fingers, but seemed to have extended deeply into the orbit; the upper portion of the conjunctiva of the globe and lid in contact with the disease, was considerably thickened: the vision of the organ, however, remained entirely unimpaired. His bowels have been costive for some time, for which he had been taking some calomel powders; his countenance cachectic, pulse natural, and complained of no derangement in his general health. He states that he had been in the hospital in June last, when the tumour was little larger than a pea; and that he was then requested by Dr. Ballingall to have it extracted, which he refused; and that since that time it has grown to four times its original size. On the day subsequent to his admission, the operation for its removal was performed by Dr. Ballingall, by dividing the upper eyelid near the external canthus, as recommended by Dr. Beer and others, in such cases; then carrying the incision longitudinally through the palpebra, and thus exposing the exterior surface of the disease, by dissecting back both the divided integuments. The subsequent steps of the operation it would be impossible to describe, for the tumour, as the operator stated at the conclusion of the performance, having extended deeper into the orbit, and being more firmly attached than he had expected, its extraction occupied nearly half an hour, during which the fingers, forceps, scissars, and scalpel, were severally tried to root it out, abandoned, and again resumed; until at length it was wrenched out by main force of the hand from its attachments. No patient could have suffered more excruciating torture; nor could any operation have been more unscientifically performed. The tumour, on its removal, was about the size of a large filbert, and of a condensed texture, of the colour of the liver or kidney, as well as I could observe, for it was cautiously reserved for exhibition at the clinical lecture, under pretence that it would be spoiled by handling if shown round the class for inspection!

13. Restless during the night from pain shooting from the eye to the back of the head; pulse 88; tongue white; bad taste of mouth; and considerable thirst. Wound slightly inflamed, without any discharge, and the redness of an unhealthy shade. Bowels not having been opened since the operation, a saline purgative was ordered; and the eye to be covered with cloths moist with the cold solution.

14. Complains of the pain now extending from the eye to the vertex and occiput; pulse 86; tongue loaded with yellowish mucus; and bowels have been opened once since yesterday. There is a small thin discharge of sero-purulent matter both from the eye and the wound, which is much swollen, and of a deeper red colour. Ordered a bolus of calomel and jalap; the eye to be washed out with a syringe and water; and some blood to be taken from the arm should the pain of head continue to increase.

15. He has been very uneasy during the night; the pain is now felt in the forehead as well as in the other parts previously mentioned; bitter taste of mouth continues; complains of weakness and tendency to drowsiness; skin hot and dry; pulse 96; bowels have been freely opened. The inflammation has extended to the other eye, both being now entirely closed and much swollen, with a slight discharge. Ordered a bolus of calomel and jalap; and the parts to be kept covered as before with cloths and the cold lotion—*no blood has been abstracted.*

16. Head somewhat better, but complains of pain in the back, and general lassitude; pulse much the same as yesterday; tongue becoming darker in the centre; breath smells of a mercurial fœtor; bowels have been opened by castor oil. The parotid and submaxillary glands are tender and enlarged; palpebræ of both eyes much more tumefied, from which there is a purulent discharge. It being now discovered, for the first time, that he had been under the influence of mercury on his admission, instead of calomel, he was ordered a saline mixture; the eyes to be steeped and a poultice applied, with a warm bath in the evening.

17. Feels himself somewhat more comfortable to-day, having sweated freely after the warm bath during the night; pulse 112; bowels opened twice by the saline solution and castor oil given this morning. Swelling and redness of the palpebræ continue unaltered; the discharge is more copious; poultice to be applied, and bowels kept open by the saline solution.

18. Has become much worse during the night; pulse 136; tongue darker, and more furred; all the external characters of erysipelas now fully developed, the redness and swelling having extended upwards as far as the coronal suture, and the face as low down as the nose; bowels have been freely opened by medicine; no alteration in the general treatment.

19. Having become violently delirious last night, eighteen leeches were applied to the forehead and temples, and purging medicine given, which has not yet operated; pulse 98; the inflammation has considerably extended in all directions; passed about a pound of high-coloured urine during the night; *he has been bled to twenty-two ounces by Dr. Ballingall, at the visit*; eight leeches ordered to be applied to the temples; a large blister to the nape of the neck; and the saline solution and enemas to be repeated, until the bowels are freely opened; with an antimonial draught at bed time.

20. Very restless, but sensible at intervals, through the night, until this morning about seven o'clock, when he again became quite delirious; pulse 112; tongue brown and parched in the centre, and of a fiery red at the edges; has had three motions of a greenish colour from medicine; breath of an extremely fœtid odour; teeth and gums covered with a brownish sordes; the inflammation has now engaged the whole scalp and greater part of the face; discharge from eyes more copious, and of bad quality; saline solution and tartrate of antimony to be continued; and the head to be steeped with anodyne fomentation—*the blood drawn yesterday is slightly buffed and sizy.*

21. Has spent another bad night, constantly muttering in a state of low typhoid delirium; pulse 106; feeble; bowels have been freely opened, and fœces natural; swelling and redness of the scalp considerably diminished; discharge from eyes profuse and unhealthy; the blister has been removed; it rose well, but its site is now nearly healed; ordered a mixture of senna and sulphate of magnesia, with antimonial wine.

22. Constitutional symptoms much aggravated during the night, the extremities becoming cold, and breathing laborious; pulse 124; breath extremely fœtid; teeth and tongue covered with a dark sordes; took some brandy-and-water in the night, which is to be repeated, as may be necessary.

23. Much the same in all respects as represented in the last report, except that he became sensible for a short interval, and again fell into the former state of stupor and incoherency; he lies at present on his back, with his lower extremities drawn towards the abdomen, and though seemingly aware of the questions proposed to him, is unable to answer them; emaciation now so extreme that he could scarcely be recognised as the same person; pulse 112, very weak; bowels opened twice; fœtor of breath and discharge from the eyes much less; heat of surface and extremities now nearly natural; inflammation of face and

scalp entirely gone; has taken some brandy and beef tea since last visit.

24. He has had various changes through the night; until nine o'clock P.M., he appeared somewhat improved in strength, when the brandy was discontinued; at two o'clock A.M. he relapsed again, his pulse becoming scarcely perceptible, the extremities cold, and breathing laborious, for which the brandy was resumed and sinapisms applied to the feet. He now appears more collected and invigorated, having made some inquiries about his family; pulse 113; bowels opened once since yesterday; discharge from eyes again profuse, and on the cornea of the right one there is an ulcer, through which the vitreous humour seems to have been discharged, the globe of the eye having lost its spherical form. He has taken some bread and milk this morning, which he devoured greedily.

25. He has been sensible at intervals since last visit, calling for food, which he consumes ravenously; pulse 112; bowels opened four times; crusts are forming on the scalp, from under which there issues a slight discharge of matter; discharge from the eyes diminished, and of a more healthy quality; has had a severe rigor in the night, after which he became violently delirious. No alteration in the treatment.

26. He has been quite delirious throughout the night, frequently calling for food; the left eye has an expression of extreme wildnesss, and he writhes his body occasionally as if in great pain; pulse 117, weak and intermitting. Ordered a large blister to the nape of the neck, and the brandy to be continued.

27. Has been gradually sinking during the night, muttering incoherently, and sometimes screaming in the utmost agony; pulse 123; bowels opened three times; respiration laborious, and attended with cough; the crystalline lens has been discharged through the ulcer of the cornea; passes his urine involuntarily; the blister has risen well; took brandy-and-water in the night.

28. Pulse scarcely perceptible this morning; extremities and surface cold, or in other words, he is dying. A severe diarrhœa came on in the night, and he passed a large quantity of high-coloured urine: at nine o'clock in the afternoon he died.

The body being removed the morning following by his friends, there was no public examination made after death. Dr. Ballingall, however, I understand, has attended to examine him at his room, but of course we must wait for the "official report," at the conclusion of the clinical lecture, for the result of his labours. The other case shall be forwarded in the ensuing week. SCOTUS.

Edinburgh, Dec. 1, 1827.

ON THE EFFICACY OF PRESSURE IN UTERINE HÆMORRHAGE.

BY THOMAS M'KEEVER, M.D., DUBLIN.

THE beneficial effects of pressure in arresting uterine hæmorrhage, having recently formed the subject of a series of communications in the pages of THE LANCET, and the practice in question having been formally laid claim to by more than one individual, as a discovery altogether of modern date, I beg to offer a few additional observations to the consideration of your readers. A discovery, Mr. Editor, may, you are aware, be perfectly original with regard to the individual, and yet not be exclusively so, when considered in reference to the particular profession to which that individual may belong. Of this the history of science affords ample proof; and if the principle applies to matters of refined and abstract research, how much more likely is it to hold good when viewed in relation to events of ordinary occurrence. That Mr. Searle conceives himself the original suggestor of the efficacy of pressure in uterine hæmorrhage, I have not the slightest hesitation in admitting; but had this Gentleman been more fully acquainted with the practice usually adopted in similar cases, by those around him, as well as in other situations, he would have found his claim to exclusive originality somewhat invalidated.

In the year 1815, I entered the Lying-in Hospital of this city as a pupil, and on looking over the notes I then took, of the very valuable practical lectures delivered by Dr. Labatt, at that time Master of the Institution, I find this point insisted on in the most positive and unequivocal terms; indeed I know of no part of the treatment of lying-in females that was more forcibly inculcated than the necessity of careful binding immediately after delivery, with the view of obviating any tendency to hæmorrhage; I have moreover a distinct recollection of Dr. Labatt having mentioned that he had, for a number of years, been in the habit, in those cases where from the history of former labours or other circumstances he had reason to apprehend this occurrence, of placing a thick, firm pad, or compress, over the pubes, previous to the application of the ordinary binder. It would, however, be doing an injustice to the numerous well-informed practitioners of this city not to state, that this mode of practice is by no means confined to any individual, but is generally considered among the profession here as of the very first importance in the treatment of uterine hæmorrhage.

During the years 1819-20 and 21, I served the office of assistant to the Institution already alluded to, and had an opportunity of witnessing the decided efficacy of this plan of treatment in a great variety of instances. At the same time it may be proper to observe, that hæmorrhage, after delivery, was by no means an occurrence of such frequency as might perhaps be expected, considering the very large number of females annually admitted into this extensive charity. Thus, of 6665 women delivered during the years 1819-20, only 25 were attacked with hæmorrhage after the birth of the child: of these 15 occurred before the expulsion of the placenta—10 afterwards: in all the result was favourable. Indeed during the entire time I resided in the Hospital I saw but two instances of uterine hæmorrhage that terminated fatally, and these were poor emaciated creatures who had been flooding for a considerable time at their own homes previous to admission. Now this very small proportion of cases, as well as their almost uniformly favourable termination, I attribute partly to the entire process of parturition having been intrusted to the unassisted contractile efforts of the womb; partly to the patients having been kept cool and quiet, and free from all source of disturbance or irritation, but above all to the strict attention that was *uniformly* paid to the careful application of the binder immediately after delivery, by which means the expulsion of the placenta, and the permanent contraction of the uterus (the great source of safety to a lying-in patient) were most effectually secured. When, however, any tendency to hæmorrhage did occur before the removal of the placenta, the first point invariably attended to was to tighten the binder, and in the event of this not succeeding, a thick, firm compress, made by folding a couple of large coarse napkins into a square form was placed over the region of the uterus, and the binder again adjusted. In the great majority of instances these, with the admission of cool air, keeping the head low, and mild cordials, were found sufficient; but where they failed to be so, some of the senior pupils were then instructed to make steady pressure, with both hands, over the region of the uterus, and to continue it until all unfavourable symptoms had disappeared. In very troublesome cases, indeed, it was rarely found prudent to discontinue pressing, until the pulse became steady at the wrist, the restlessness, so very alarming in all these cases had gone off, and the womb was felt like a hard ball descending into the pelvis.*

Since leaving the Hospital I have had still further opportunities of witnessing the direct and immediate efficacy of this practice. From a number of cases to which I could refer I shall merely mention the following:—Mrs. N., William Street, a lady of spare, delicate, habit, the mother of ten children, during her five last confinements, had been subject to alarming hæmorrhage and weakness previous to the coming away of the placenta. I attended her for the first time when confined with her eleventh child, and having passed a binder round her *while in labour*, it was, immediately on the birth of the infant, firmly secured over a thick, firm compress, such as I have described. By this arrangement instant pressure was secured, and all agitation of the body after delivery completely avoided. I then continued to press with both hands over the pubes for nearly an hour, until, in fact, the placenta and secundines were expelled by the action of the womb. The result was most satisfactory; not the slightest hæmorrhage or weakness occurred. I have attended this lady since on four children, and each time adopted similar measures with equally favourable results. And as an undoubted proof of the efficacy of pressure, I may mention, that on one occasion, where I happened to be engaged when summoned to attend her, and that delivery had taken place before my arrival, I found her flooding to such an alarming degree, as to feel convinced that had my visit been long deferred, death must have been the consequence. Before I conclude this short communication, I cannot help stating my belief, that had the measures I have described been employed in the instance related by Mr. Searle, they would have been fully as effectual as placing a pile of ponderous quartos on a lady's abdomen. This, to say the least of it, is rather an unseemly practice; such a patient might well exclaim, in the language of Ben Johnson:—

> "Oh how shall I digest this mighty load
> of learning."

Dublin, Oct. 6th, 1827.

ON INTERMITTING PARAPLEGIA, COMBINED WITH AMAUROSIS.

BY JOHN ALEXANDER, M.D., MANCHESTER.

The paper upon paraplegia, published in No. 215, as having been read at a meeting of the London Medical Society, recalls to mind an uncommonly interesting case, of what may be termed *intermitting paraplegia, combined with amaurosis*, which presented itself in one of the clinical wards of the Edinburgh Royal Infirmary, about twelve months ago. I now send you, without further preface, an account of it, as reported in the journals of the hospital, and copied into my case-book, together with a few remarks which its peculiarities naturally suggested.

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* I need hardly insist on an examination per vaginam in every case of uterine hæmorrhage, as it is possible it may be owing to an inversion of the womb. Smellie neglected this in one instance, and the woman die .

"Dec. 1, 1826.—Jesse Gardiner, æt. 12, of a delicate appearance, admitted 1st of December, complains of a *loss of sight* in the left eye, unattended with any headach, or other cerebral symptom; pupil very much dilated, but sensibly contractile on the application of a lighted candle, or other strong stimulus to the eye. She has also no power over the lower extremities, being unable to move them, although they are equally warm and sensible to the touch with any other part of the body. Tongue clean, appetite good, bowels regular. Pulse and heat natural."

The following excellent history of the case, along with the patient, was yesterday transmitted from Perth, by Mr. Cleland, surgeon, resident there:—

"Jesse Gardiner has been occasionally under my care, since the autumn of 1822, for a variety of nervous ailments. When I first saw her, the disease exhibited the usual marks of chorea; and as she was rather a delicate-looking girl, with weak digestion, tense abdomen, &c, I trusted to purgative treatment, and, for a short time, she appeared to have recovered. The year following, I found her worse than before; the fits were more alarming, and more irregular, both in form and duration. Sometimes they assumed the *appearance of epilepsy*, with total insensibility during the attack, and sleep afterwards, but the face was rarely much distorted; at other times the muscles were quite rigid, and not unfrequently, as if seized with a sort of phrensy, she would *rush out of the house, and run until quite exhausted.* Her eyes became affected; sometimes she appeared to have perfect amaurosis of one eye, sometimes of both, when the pupils are dilated, and hardly moveable on the approach of a brilliant light. Moderate bleeding, either by the arm or leeches, seemed of little use; purgatives were still useful, but less immediately so than at first. In the summer of 1824, a trial was made of Fowler's solution, which proved of no advantage. In the spring following, as there seemed (from headach and suffusion of the conjunctiva) to be considerable determination of blood to the head, a weak solution of tartarised antimony (as a substitute for James's powder, as recommended by Dr. Cheyne) was given, and with considerable temporary relief. I had not seen her for several months, when, in October last, I found her complaining of *inconstant or intermitting paralysis of the legs,* and exceedingly distressed by the frequency of the fits, which assumed now very much the appearance of common fainting. They occurred almost daily, and were generally followed by some obvious change in the other symptoms. Sometimes, after their going off, she *was found completely amaurotic*; at other times, when *amaurotic at the commencement of the attack*, she would after *its termination have recovered her vision*; the same was frequently the *case, with respect to the paralytic affection of the limbs.* Recourse was had again to purgatives, generally croton oil, but to little or no purpose; and, latterly, she has taken thrice a-day half a grain of the nitrate of silver in a compound rhubarb pill, seemingly with the effect of lessening, in some degree, the frequency of the fits."

Dr. Duncan, (whose medical acumen, extensive information, and urbanity, are too well known to require the humble tribute of my pen,) desirous to witness some of the phenomena of this anomalous complaint, and from the conclusions thence arising, to be directed in his treatment; ordered, in the first place, as a placebo, the friction of a little ointment upon the neck. The day following, we have this report: "Soon after the visit of yesterday, she (Jesse Gardiner) perceived a sensation *indicating the return of power in her limbs*, and, in a moment afterwards, she recovered the power of walking and seeing, which have since remained. Bowels confined." Aloetic pills were administered to remove the constipation, and a pill of the ammoniate of copper directed to be given every night and morning. Suffice it to say, that the latter medicine was continued until the 15th, when she left the hospital, having had no return of those disorders which had troubled her for so many years.

It has long been a disputed point amongst physiologists, whether the iris contracts from sympathy with the retina, or from the impressions made directly upon itself—from the knowledge of its being supplied by different nerves—from the fact of its contracting in the most complete forms of cataract, (when the diameter of the opaque lens has been greater than that of the pupil fully distended,) I had been inclined to think its contraction independent of the retina. This case of Jesse Gardiner's confirmed what had hitherto been matter of opinion, founded upon abstract reasoning alone. When I applied a lighted taper near the eye, the pupil, from the size or diameter of two-thirds of a sixpence, contracted immediately to the size of a small garden pea. Now, I presume, this could not have happened, provided the action of the iris were not independent of the retina. It may be asked, when you applied the light, was the amaurosis so complete, as to preclude her seeing the taper? It was so, although I freely confess, she had an indistinct perception of something more than usual before the eye; but this perception *was so exceedingly slight*, as not to account, in any satisfactory degree, for the *natural* contraction of the iris, and therefore (in my humble opinion) does not invalidate the argument.

The paraplegia, in this case, was of a very unusual character; it generally produced not merely a loss of motion and diminution of temperature, but of sensibility, with considerable flaccidity and wasting of the muscles of the affected part; no such effects presented themselves in the present anomalous case. I would next remark, that the nerves supplying the voluntary muscles seem to have been those primarily affected; for we are told by Mr. Cleland, that the fits had first the character of chorea, and afterwards of epilepsy, the amaurosis and paraplegia having supervened only twelve months previous to her admission into the hospital; what I would wish to observe, on this point is, that perhaps no complaints predispose more, or oftener produce fatuity of intellect, than those of chorea and epilepsy; therefore, it was not a little remarkable, that the intellectual faculties of this girl were left so completely unimpaired, with a four years illness, characterised by those diseases.

The next feature in this case, is one of great interest to the student of physiology; I allude to the *occasional phrensy inducing her to run out of the house, and proceed until exhausted.* On reference, I find that, from the experiments and observations of Magendie, Rolando of Turin, Fleurens, and Dr. Laurent of Versailles, it is now a pretty well established fact, that certain parts of the brain are destined to urge progressive motion, as well as others to preside over the lateral and rotatory motions of the body. On the integrity of these several parts, and the proper equilibrium being preserved, depends their regularity of function. Magendie found, that an injury of the corpora striata produced the phenomenon present in this girl, viz. the disposition to run forwards: and relates, (what is exceedingly interesting,) that when the rabbits (his subjects of experiment) had run until they could run no further, they still preserved *the attitude of progression*. M. Rolando regards the cerebellum as the source whence muscular contraction emanates; this able physiologist removed the cerebellum from the crania of several mammalia and birds, and observed that the movements diminished in the ratio of the quantity of substance extracted; this, however, is a very objectionable "instantia crucis." Fleurens regards the cerebellum as the *regulator or balance* of animal motion. Lesions of the cerebella of animals have produced an irresistible disposition in those animals to retrograde motion, as instanced by Magendie's well-known experiments on the water dog, pigeons, &c.; and Dr. Laurent relates a case of a girl, who, during nervous attacks, is forced to retrograde motion. Allowing to the preceding evidence its due weight, we can easily perceive how an excited condition, (from what cause it matters not,) or a diseased state of particular portions of the brain, may induce the phenomenon Jesse Gardiner presented.

Now, that the syncope could at one time induce, or seem to excite, the amaurosis and paraplegia, whilst, at other times, it was the cause of their intermission, appears rather paradoxical; at all events, any attempts upon my part to explain the circumstance shall be dispensed with, as I conceive it more consistent with the spirit of true philosophy, to admit the existence of causes beyond our comprehension, than to found an argument upon hypotheses, which only demonstrate how repugnant these inexplicable phenomena are to the human mind.

Wishing your Journal the success it deserves, I am restrained only from adding some further observations upon the treatment pursued, and the effect produced in the above case, by the extensive trespass already made upon your valuable pages.

SCOTCH DIPLOMAS.

To the Editor of THE LANCET.

SIR,—As you have hitherto so fearlessly advocated the cause of liberality and truth, I trust to your accustomed candour for the insertion of the following observations.

In your retrospective introduction prefixed to the last Number but one (Saturday, Oct. 6,) there is a paragraph that seems to convey a meaning contrary to the facts of the case, at the same time that it casts a severe reflection on a large body of respectable individuals, which they do not apparently deserve. After very properly recommending "the adequate public examination of candidates for the medical profession in all its branches," you go on to remark, that, "in the absence of such a test of medical ability, it cannot be denied that an academical education, at Oxford or Cambridge, affords a better security to the public, for the competency and respectability of a practitioner, than the mere fact of possessing a Scotch diploma. The academical education may not, of itself, afford much opportunity of acquiring professional knowledge, but a man who has incurred the expense of such an education, for the express purpose of taking a medical degree, is more likely to qualify himself for the discharge of professional duties, than one whose diploma may prove nothing but the fact of an outlay of capital to the amount of fifteen pounds."

By the above it will be generally understood, that the possession of a "Scotch diploma proves nothing but the fact of an outlay of fifteen pounds." Now, though this statement is strictly applicable to those mongrels in the profession ycleped *dub-doctors*, who purchase a certain quantity of parchment at the sum specified, and never get a glimpse of the degraded University that sells it,—it is far, very far, from being applicable to those *regular* physicians who take their degrees at Edinburgh, after a residence of three or four years; and though it is probable their "expenses" are not equal to those of Oxford or Cambridge, still they are enough to make it "likely" that they will "qualify themselves for the discharge of their professional duties" quite as well, by studying some years at the first medical school in Europe, as if they had kept their terms at an English University, and then gone to Edinburgh for a twelmonth, or more, to acquire that professional knowledge they were unable to obtain on the banks of the Isis or the Cam. That this is notoriously the fact will not, I believe, be denied, any more than that nearly three-fourths of our metropolitan physicians have graduated north of the Tweed, and who, in spite of their "Scotch diplomas," possess their full share of medical skill and public patronage. *Out* of London, I apprehend, the proportion of English graduates is still less; these, however, together with their *regular* brethren from other Universities, form the great bulk of M.D.'s in the country; it is but just, therefore, that they should be exempted from the sweeping clause which would indiscriminately mix them up with the *dubs*, to whom, in fairness, your observations ought to have been restricted. These gentry, indeed, are not very numerous; they are to be met with in two forms, either in connexion with the *shop*, where the apothecary can conveniently consult the doctor without disturbing his *identity*; or, "standing alone, like noun-substantives," on the *medical merits of their parchment*, in which case, it may be truly said, to "prove nothing but the fact of an outlay of fifteen pounds."

Yours, &c.

AN OLD SUBSCRIBER.

October 17, 1827.

LONDON MEDICAL SOCIETY.

December 3.

Dr. HASLAM, President, in the Chair.

THE Society, after three weeks tedious *labour*, has, we rejoice to say, been happily delivered of Dr. Blick's case: the head was so firmly locked in the forceps, that great fears were entertained for the safety of the bantling. This evening Mr. Shirley related a case of very extensive compound fracture of the skull, with depression of bone, laceration of the dura mater, and protrusion of the cerebral substance. More than twenty different portions of bone were removed, some of which were pressing on, and others sticking into the dura mater; some coagula also were removed. Under the antiphlogistic treatment this patient did well; during the recovery, the speech was observed to be much affected, and great irritability of temper was manifested. The practical inference which Mr. Shirley deduced from this case, was, that from the great reparative powers of nature, observed in this instance, in uniting an extensive wound of the dura mater, it might be advisable, under some circumstances, to make an opening in this membrane. No debate ensued upon this highly interesting case, and it was succeeded by the recital of a case of pneumonia, by Mr. Handey. This Gentleman, it seems, was called on the 1st of November to visit a stout muscular man, whom he found complaining of great oppression at the chest, the respiration being very difficult; and there was violent pain, even on pressure, in the right hypochondrium. The pulse was 130, full and hard. The symptoms were considered by Mr. Handey to be referrible to inflammation of the liver; twenty ounces of blood were abstracted from the arm, and other means employed. On the following day (that is, the 2d), the symptoms were much relieved—eighteen leeches were applied to the side. On the 3rd and 4th, there was a decided improvement; a further application of leeches was made, and a blister.

On the morning of the 5th of November the patient was attacked with great difficulty of breathing and violent pain in the chest, in consequence of which he was bled to eight ounces, but in the course of a few hours was so much worse, that it was deemed right to abstract forty ounces of blood from the arm, twenty-four leeches were applied to the side, and calomel with opium exhibited in repeated doses. A dose of æther also was administered, which greatly relieved the breathing. In the evening the pulse had sunk from 140 to 110, and the man was in every respect much better. From the 5th, until the 17th, the patient remained well, having, in fact, as Mr. Handey stated, "*no tangible symptoms.*" The breathing was free. Early in the morning of the 17th, vomiting came on suddenly, and a quantity of greenish fluid, resembling bile, was thrown up; in the course of a few hours, the expectoration of a very offensive purulent matter took place, and upwards of a pint was spit up in twenty-four hours. The vomiting recurred on the following day, with a further expectoration of the offensive matter, and this continued until the 23d, when the patient died. At one period of his indisposition the man was seen by Mr. Lawrence.

The body was examined by Mr. Langstaff:—the right lungs were found to be greatly distended, and felt very firm. Both the costal and pulmonic pleura evinced signs of inflammation having existed; lymph had been thickly deposited, and firm adhesion had taken place between the anterior and middle lobe, and the pleuritic covering of the diaphragm, the adhesions being apparently of long standing. Upon cutting into the lungs of this side, each of the lobes was found to contain small scrofulous tubercles at their upper part; the parenchymatous tissue was loaded with a dirty muco-purulent secretion, and in several parts of the lungs were small abscesses filled with pus, which communicated with the bronchial passages, but had no connexion with the tubercular growths. The lungs were so much consolidated in some parts, especially at the inferior portions, that they had a hepatised feel and appearance; the other parts, loaded with muco-purulent fluid, were so much softened, that the structure was easily broken down by the finger, and if tinged by the black pigment seen in *melanosis*, might have been regarded as a specimen of that disease.

The lungs on the left side were nearly equally diseased; there were adhesions between the pleuræ, but no connexion existed, as on the opposite side, with the diaphragm. The heart was small and flabby, the lining membrane, as well as that of the large arteries, was extremely red. The abdominal viscera were lastly examined: the liver was large, of a pale yellowish colour, but with no signs of organic disease, but the peritoneal covering of the convex portion, to a considerable extent, was firmly adherent to the serous covering of the under surface of the diaphragm. Lymph had been copiously deposited, connecting these two surfaces, and a secretion of pus had taken place between, which had been prevented from escaping into the abdomen by the firmness of adhesion, forming the boundaries of the abscess. There was absorption and ulceration of the serous covering of the under surface of the diaphragm, to about the size of a crown piece, and nearly the same extent of destruction through its substance and pleuritic covering, so that a communication existed with the lung, which adhered to the diaphragm. This abscess *on* the liver did not communicate with the bronchial tubes.

The parts were handed round for inspection, and an interesting debate ensued.

Dr. James Johnson said, he thought it was clear that the disease commenced in the chest, and spread to the peritoneal covering of the diaphragm and liver. The three distinct stages of acute pneumonia were to be remarked in this case, congestion, hepatization, and infiltration with puriform secretion. These stages, he said, were clearly indicated by the use of the stethoscope, and he was surprised that mediate auscultation was not had recourse to, seeing how important it was to discriminate between a *pulmonic* and an *hepatic* affection. He (Dr. Johnson,) could not believe, that the patient did not throughout suffer much difficulty in his breathing, although Mr. Handey had stated, that respiration was affected only on two particular occasions.

Dr. Burn also spoke strongly of the propriety of using mediate auscultation in these cases, observing, that it was the only certain means of ascertaining where the disease existed, for when the lower parts of the lungs became inflamed, as in the present instance, it was difficult, without the use of the stethoscope, to discriminate between it and hepatitis. Dr. Burn thought also, that the case clearly showed the difference of situation with tubercular disease, and that resulting from inflammation, the former usually taking place in the superior portion of the lungs, and the latter in the lower portion. This was a case of acute inflammation set up in lungs predisposed to scrofulous disease, and hence the products of this inflammation were of a scrofulous character. Cases of this nature were not to be cured by blood-letting, for where this disposition to the formation of abscess existed in the lungs, he had seen bleeding carried to a great extent, and still the disease not arrested. He thought, that whenever the pain recurred again and again after blood-letting, it was diagnostic of the formation of abscess; in such cases it was, perhaps, better practice, seeing that we could not subdue the disease, not to deplete too much, so as to exhaust the strength, and thus entirely prevent those remedial measures, which nature would perhaps effect.

Mr. LANGSTAFF, in reply to Dr. Johnson's observations upon the respiration not being affected in this case, said, that the most extensive pulmonic disease would often exist without its being suspected; he instanced the granular tubercles of children, and other cases, wherein the lungs were in a complete state of ulceration. Mr. Langstaff thought the difficulty of respiration depended upon the degree of adhesion between the costal and pulmonic pleura.

With regard to the circumstance of extensive disease of the lungs existing, without being detected by the ordinary means, this, Dr. Johnson and Dr. Burn remarked, spoke strongly in favour of the use of the stethoscope, which was exactly applicable in those cases, where common means of diagnosis failed. In opposition to Mr. Langstaff's opinion, that the dyspnœa resulted from adhesion of the pleuræ, it was contended that the parietes of the chest are, under every circumstance, in close apposition with the lungs, so that no difference in respiration could result from their union; and in confirmation of this opinion, the fact was noticed of the frequent discovery of adhesions after death, where no symptoms during life denoted their existence. It was admitted, that a sliding motion took place between the lungs and inner surface of the thorax, but the actual recession was denied, which, however, was strenuously maintained by Mr. Langstaff. Mr. L. inquired, how, if the lungs were always in contact, that they were not wounded on the operation of tapping the chest? To which it was remarked, by Dr. Blick, that the circumstance of opening the chest occasioned a collapse of the lungs. Mr. Langstaff further asked, whether the adhesions existing between the two portions of pericardium would not occasion an interruption to the heart's action? thus attempting to establish an analogy, as was observed by Dr. Johnson, between a passive organ and an active organ. Mr. Lloyd thought that difficulty of respiration was certainly produced from cohesion of the pleuræ, until the bands became lengthened. Mr. Lloyd also made some remarks upon the stethoscope, which were too trifling to be mentioned. He had *not used* this instrument, but had *seen* it employed, and he thought it was likely to lead to error in some cases, although he was not kind enough to inform the Society of the particular nature of such cases.

WESTMINSTER MEDICAL SOCIETY,

Saturday, December 1, 1827.

Dr. SOMERVILLE, in the Chair.

MR. STAFFORD, agreeably to the announcement at the previous Meeting, rose to exhibit and explain two new instruments* for the cure of stricture, which were inventions of his own. Four methods of treating strictures have hitherto been adopted; 1st, by ulceration; 2dly, by caustic; 3dly, by dilatation; and 4thly, by cutting down upon and dividing the obstruction. Ulceration had been attended with several bad consequences. The application of caustic had been employed by Wiseman and Hunter, as well as by Sir Everard Home. He conceived that strictures might be divided safely and effectually by the instruments which he would now explain. For complete permanent stricture, he had employed an instrument which consisted of a simple metallic catheter, with a less curve than those generally used, and which contained a small stilet, which could be pushed, by means of a long handle, out of the tube and through the stricture, when the extremity of the catheter rested on the obstruction. The second instrument was intended for cases where the stricture was not complete; in these instances he introduced a small wire through the urethra into the bladder; on this, and with it for a guide, he introduced a hollow tube with an open extremity to receive the wire, and which was slightly curved. This instrument was then passed down to the stricture, and a small lancet was made to project on either side from its extremity, so as to divide the obstruction, being, however, retained by means of the wire in the proper canal. These instruments had been found to answer fully the object for which they were intended; several cases in which they had effected a cure had been published in the London Medical Journal, and it would, therefore, be unnecessary for him to refer to them, but he would detail the cases of four patients who had, subsequently to that report, been cured by their means. These had occurred in the practice of Mr. Earle, at Bartholomew's Hospital. In two of these the new instruments had been employed with success, after all other means had failed, and at a time when Mr. Earle had been upon the point of cutting down upon the stricture from the perinæum. In none of these patients had the operation been attended by any bad consequences, and indeed it never had produced any distressing symptoms; the patients had in no instance been confined to bed more than twenty-four hours after the employment of this invention. Mr. Stafford conceived that the instruments which he now handed round the Society, were calculated not only to effect a more quick, but also a more permanent cure. After the stricture was divided he withdrew the instrument, and introduced an elastic catheter, which was retained as long as it was attended by no inconvenience. One of the operation's, which was performed twelve months ago, had not been followed by any recurrence of the disease. The great ingenuity of these inventions seemed to excite considerable admiration, and Mr. Stafford sat down amidst very general applause.

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* Instruments of this description were employed many years since at Guy's Hospital, but without success.—ED.

Mr. Hawkins thought that every improvement in the treatment of stricture was well deserving of attention. Considering, however, the irritability of the urethra, and the likelihood of wounding the corpus spongiosum, and thus inducing infiltration of urine, he conceived it questionable whether this new method was preferable to the treatment of stricture by dilatation, and he doubted whether the cure would be so permanent as in the old way.

Dr. Barry paid a high compliment to Mr. Stafford, and thought that his instrument might become of extensive practical utility. When in Paris, he had seen an instrument used by M. Amussat, and he thought that if the advantages of his and Mr. Stafford's instrument were combined, both would be materially improved. M. Amussat's invention consisted in a straight staff, with a fusiform, or bulbous extremity, which contained six small lancets, which could, by turning and screwing, be made to pass through the urethra, and thus to divide the obstruction. These lancets were well protected with *grease*, so as to render the passage of the instrument more easy. M. Amussat had acquired great dexterity in using his invention, and he thought that if Mr. Stafford's instrument had been straight instead of curved, it would have less chance of forming a false passage, or of dividing the spongy or cavernous part of the urethra.

Mr. Arnott doubted whether the use of these inventions would be found either to effect a more permanent or rapid cure. He had, in his own practice, on many occasions, found great benefit from the employment of the caustic, and he related to the Society some of the cases in which it had proved so beneficial. He had also divided the stricture by cutting down on it from the perinæum, in the case of a gentleman who had long been affected with permanent strictures and a fistulous opening in the perinæum. He had first passed a metallic catheter down to the obstruction, then introduced a probe into the fistulous opening, and by following its course with a bistoury he divided the obstruction. A permanent cure had resulted, and he was soon after able to pass a bougie, as large as number 13, into the bladder. He seemed to consider that Mr. Stafford's invention would in few instances be necessary.

Dr. Ley considered that the preceding speakers had not in the discussion paid sufficient attention to the difference of the two states in which stricture existed, viz., complete and permanent. He had not had much experience in the treatment of contractions of the urethra because it was out of his way, but he was well acquainted with the disease in another canal, and from analogy he would say, that it was more easily cured by dilatation than division. He could not agree with Dr. Barry, when he stated that a straight instrument would pass with greater facility than a curved one, and it required very little observation to see, that into a curved canal, a curved instrument would pass with the greatest ease. It appeared to him, that from the necessity of *greasing*, and *twisting*, and *screwing* M. Amussat's instrument, great difficulty was encountered in introducing it. He believed that strictures were generally to be found in the membranous portion of the urethra. Now if he had the disease, he certainly would not allow his urethra to be slit open, provided the stricture could be cured by dilatation, and he thought that most present would be of a similar way of thinking.

Dr. Shiel observed, that perhaps many present might be deterred from delivering their opinions from the reports—

Dr. Somerville here called Dr. Shiel to order, and informed him that the Society had nothing to do with the reports which were published; that the Committee had been applied to for leave to publish them, and that they had answered that it was not in their power, supposing they had the wish, to prevent their appearance.

Dr. Shiel had just a few words to say. In relating the case of Mrs. M'Cormack, at the last meeting, he had observed that the lady had recovered, whereas, in The Lancet it was stated that she was *dead*.

[We can assure Dr. Shiel, that it has always been our anxious desire to give the reports as correctly as possible; and although we may sometimes make a misstatement, we shall ever be happy to correct it. If Dr. Shiel has any objection to the publication of his own speeches, we can assure him his name shall never again appear on our pages; but we think he ought to make a little allowance for errors, since his own conduct, on some occasions, has not been altogether free from *mistakes*.]

Dr. THOMSON confirmed Mr. Arnott's statements as to the great efficacy of caustic, which he had found on a variety of occasions to be highly beneficial. He passed a high eulogium on the ingenuity of Mr. Stafford's instrument, which he thought was the best of the kind which he had ever seen.

A rambling and witty debate, between Dr. Barry and Dr. Ley, then ensued, in which nothing of importance, touching either the use of the instruments, or the nature and treatment of stricture, was elicited; and the Society, after the announcement from the Chair that Mr. Bennett would, on the next occasion, introduce the subject of Inflammation of the Lungs, adjourned, after rather a flat discussion.

ST. BARTHOLOMEW'S HOSPITAL.

ERYSIPELAS.

THE pathology of this disease, if we may infer from the recent discussions on its nature and treatment, as elicited by the reading of Mr. Lawrence's paper on that subject before the Medico-Chirurgical Society, is wholly unknown to the "Pures" of this metropolis. That it is an inflammatory disease, no one, we should think, of common understanding would deny, yet the "pure" surgeon and "pure" physician members of the Medico-Chirurgical Society recommend a line of treatment altogether at variance with such a principle.

The definition of erysipelas, as afforded by Willan and Bateman is to this effect, that it is "a febrile disease, in which some part of the body is affected externally with heat, redness, swelling, and vesications." Now were we to ask a youth in the first six months of his apprenticeship, what method of treatment such a character of disease would indicate, he would immediately answer "antiphlogistic." Again, were we to put to the same individual this interrogatory, How would you treat erysipelas? as readily would he reply, "I would give the patient bark." And whence this discrepancy? Ignorance of the pathology of a disease generally leads to a sort of hoodwinked treatment, and the recovery of a patient under such circumstances is no more a proof of the correct application of the principles of medical science, than the wafting on shore of a shipwrecked crew by a lucky veering of the wind, is a proof that their preservation was effected by their skill in nautical science. Erythema and erysipelas we hold to be grades of the same disease. Erythema, we should say, is confined exclusively to the cutis vera. Erysipelas affects that organ, involving, likewise, a peculiar arrangement of matter termed rete mucosum, whence we believe is derived the vesicular character of this disease. Erysipelas phlegmonodes not only affects these tissues, but extends itself to the subjacent cellular and adipose tissues, and the enormous degree of tension and tumefaction in some cases of phlegmonoid erysipelas, are referrible to the great effusion of lymph into the subjacent cells. As to erysipelas being a disease "*sui generis*," it is just as much so as inflammation of the pleura, or that of the parenchymatous structure of the lungs. The doctrine of "*sui generis*," was the theory inculcated by the late Dr. Currie, when lecturer at the Borough schools, and Dr. Babington, his co-lecturer, we know became thoroughly saturated with Dr. Currie's opinions. We have offered thus much of what we take to be the pathology of this disease, that the treatment of the two cases of phlegmonous erysipelas, which we subjoin, may be better appreciated, and the comparative value of the practice in the two cases more clearly understood.

E. W., ætat. 56, a driver of a hackney coach, and a devotee to "Hodges's Cordial" and "Whitbread's Entire," having grazed his shin in descending from the box, in the course of two or three days, from inattention to the circumstance, the whole leg, from the knee to the ancle, became attacked with phlegmonous erysipelas. On his admission into the hospital, the leg was considerably tumefied, deep red, and painful. Vesications in all stages were to be seen. He had a rather small but quick pulse, 130 in the minute; coated tongue and anxious expression of countenance, with some degree of cerebral disturbance. Mr. Lawrence explained to the pupils the nature of the case, and remarked that incisions carried through the whole length of the inflamed parts, were not only best calculated to arrest the progress of the disease, but in many instances they offered the only chance of averting the fatal termination of the case. Two incisions commencing on either side the leg, from the heads of the tibia and fibula, and extending to either ancle, were made through to the inflamed skin and subjacent cellular tissue. A dose of house physic to be taken in the course of the day, and saline antimonial medicines every six hours. The leg to be well fomented, and afterwards enveloped in a poultice.

The man passed a tolerably quiet night. His pulse was small and weak, and he expressed himself as being much debilitated.

His bowels had been freely acted on, and he felt easier and more comfortable than yesterday. He lost forty ounces of blood from the incisions by actual admeasurement.—*Pergat in usu med.* We saw the patient two days after the last report, and the amendment that had taken place during that short space was such as we could have hardly anticipated. His tongue was considerably cleaner, his pulse was tranquil, and he had a smile upon his countenance. He felt very debilitated. He expressed a "longing" for a mixture of "Hodges's Cordial" and "Whitbread's Entire." All traces of erysipelas had vanished from the upper part of the leg. The incisions in that situation presented two healthy granulating wounds. The progress of the disease in the upper two-thirds of the leg had been entirely put a stop to, or to use the more elegant phraseology of "our countryman Brodie," it had been "*put out.*" The incisions in the *lower third* of the leg were in a state of suppuration. The matter was burrowing beneath the integuments of the foot. An incision extending obliquely from the internal malleolus to the external cuneiform bone, gave vent to the collection. Half a pint of red wine daily, and a four-ounce mixture of gentian and ammonia. House physic, *pro re nata.* The incisions to be dressed with yellow basilicon, and covered with a poultice on the foot and lower third of the leg. It would be idle to enter into any further detail of the case; suffice it to say, that the man's recovery was rapid and progressive. The sloughs in the lower part of the leg and foot were thrown off; healthy granulations succeeded, and in less than a month from his admission into the hospital the whole was soundly cicatrized.

PHLEGMONOUS ERYSIPELAS.

Case 2. J. M., ætat. 34, a robust and plethoric man. A week previous to his admission into the Hospital, he ran the point of a nail into the fore-finger of the right hand, which, at the moment, was productive of considerable pain. He applied a poultice at night, and on the following morning dismissed the circumstance as unworthy of further attention. He again took to his work as an ordinary day labourer. On the fifth day after the occurrence, the finger became rather painful, the pain at night extending up the hand and fore-arm. He attempted to resume his employment on the following day, but the painful state of the hand and forearm compelled him to relinquish. Tumefaction was soon apparent, and he passed a restless night. On the seventh day after the accident he was admitted into the Hospital under the care of Mr. Vincent. The whole hand and fore-arm are enormously swollen from plegmonous erysipelas. Numerous vesications filled with lymph, in different states of perfection, are readily perceived. The tense state of the limb, from the elbow downwards, is excessive. The man's countenance is flushed and anxious. He has a full and strong pulse, 125 in the minute, and a thickly-coated tongue. Mr. Vincent is a member of the "Old School," one of those men who cherish many notions "concocted" in "the dark ages of surgery;" and it would be the height of folly to suppose that he offered any observations as to its nature and treatment. Taciturn, and "brooking a look profound in ancient lore," he ventured to prescribe the following mixture:—

℞ *Liq. ammon. acetatis,* ℥ij;
Vini antimonii, ʒj;
Mag. sulphatis, ʒij;
Aquæ menthæ ℥iv, M *sumat* ¼ *quartis hòris.*

The limb to be constantly fomented with poppy decoction. On the following day the erysipelas had extended itself; vesications were to be seen beyond the elbow-joint; the hand and fore-arm were exquisitely painful; his night had been restless and disturbed; pulse not all diminished, either in fulness or frequency. Pergat in usu mist. salin. Hydrarg. subm. gr. ij. h. s.s. Fomentations to be continued.

Three days from the last report we again visited the patient. During the interval we found that no further medical measures had been employed. The erysipelas had extended itself to the anterior fold of the axilla; the tension of the fore-arm was so great, that the pain had become of a most intolerable kind. Matter had formed beneath the integments of the hand; the cuticle had peeled off, and pus from innumerable pores could be pressed through the disorganised cutis vera. The case had become really desperate, and the question was, how to meet it, but by a desperate remedy; so we suppose Mr. Vincent thought, for truly desperate practice it was for him to venture on an operation, denounced on *high* authority, as being "terrible to the patient, and revolting to the by-standers." However, Mr. Vincent had courage sufficient to undertake its bloody performance, and absolutely made a cut with a pocket scalpel through the skin and cellular tissue, of the enormous length of three inches. The incision was commenced from over the coronoid process of the ulna, and carried to that extent downwards, on the palmar aspect of the fore-arm. But more extraordinary still, a little incision, of similar dimensions, was afterwards made over the anconeal aspect of the fore-arm, near to the wrist. These incisions relieved the tension of the parts comprehended within the *circle* of their extent. The intermediate portion of the fore-arm, that portion intervening between the two incisions, maintained its tenseness for some considerable time afterwards. About twenty ounces of blood flowed from the divided vessels. Some relief was obtained by this practice. The man passed a better night, and on the following day the erysipelas had not extended itself. Fomentations and poultices to the limb, and to continue the saline medicines.

We paid particular attention to this case for a long period of time; the erysipelas of the arm gradually declined; from the elbow to the points of the fingers there was sloughing beneath the integuments; numerous incisions at different times were required to evacuate the matter; wine and quinine were given to support the powers of the constitution. He lost his ruddiness of complexion and robust appearance with impaired sensibility of the hand and fore-arm. The cure, if we may so call it, was long, tedious, and disheartening, and just upon three months from his admission the parts had not entirely healed.

So much for the comparative value of the treatment of erysipelas, as exemplified in the two preceding cases.

WESTMINSTER MEDICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—Your reporter, in his account of the proceedings of the last meeting of the Westminster Medical Society, appears to have misunderstood the purport of the observations read to the society by Dr. Somerville, at my request. It was not the *carotid arteries* that were *tied* by Magendie, but the *fifth pair of nerves that were divided*. He informs us, in his experiments *on the influence of these nerves on the nutrition and functions of the eye*, that having in rabbits repeatedly divided the fifth pair, amongst other results, the following particularly arrested his attention:—

"On the second day after the operation, the conjunctival coat of the eye, on the side that had been submitted to experiment, became somewhat red and inflamed, and in a short time secreted an abundant puriform discharge. The iris next became affected, and in a day or two more the whole globe of the eye was involved in the extending inflammation. About the eighth day from the performance of the operation, the cornea suffered visible organic lesion, and separated, at its margin, from the sclerotica, ulcerating at the same time in its centre, where an aperture soon formed, which, in a day or two, admitted of the entire escape of the humours, so that the eye perfectly collapsed, and occupied but a very inconsiderable portion of the orbit."—(*Journal de Physiologie Experimentale, et Pathologique, par Magendie, moi d'Avril,* 1824.)

Now, may not the loss of the eye, after the operation in the case read by Mr. Duncan, be, with some appearance of reason, referred to diminished *energy*, or, if I may so express myself, *atrophy* of the fifth pair of nerves, induced by the sudden suspension of the *direct* supply of blood to the left side of the brain by the ligature of the carotid? The similarity of the phenomena in the above case, and those reported by Magendie, is very striking; and it was this resemblance that induced me to offer the foregoing pathological and physiological reflections, only as a plausible hypothesis.

Do not, however, imagine that I conceive the loss of the eye, after a ligature has been applied to the carotid, is in the least a *necessary consequence* of such an operation in every case. On the contrary, the phenomenon is only to be explained, in the present instance, by supposing that some pathological change, primarily independent of the operation, had been induced on the encephalon; a supposition not a little supported by the free communication that there is reason to believe exists at present between the external tumour and the brain; and that this change, whatever it may be, has been afterwards aided in producing the loss of the eye, by the impetus and necessary quantity of blood being diminished, in consequence of the ligature of the carotid.

You will oblige me by inserting this explanation in your next Number.

I am, Sir, your obedient servant,
D. NEGIS.

26, Poland Street, Oxford Street,
November 8, 1827.

ADDITIONAL SUBSCRIPTION FOR MR. W. COOKE, OF EXETER.

Per W. Hamley, Esq.:—

	£.	s.	d.
Mr. Hamley, Bodmin	1	0	0
Michell, do.	1	0	0
Roscwarne, Wadebridge	1	0	0
Blackmore, St. Austle	1	0	0
Langon, Lostwithiel	1	0	0
Biddick, St. Austle	1	0	0
Couch, Polperro	1	0	0
Rogers, Looe	1	0	0
A Friend	0	5	0
Ditto	0	5	0
	8	10	0
Expenses advertising in Cornwall Gazette	2	1	0
	£6	9	0

THE LANCET.

London, Saturday, December 8, 1827.

As the period at which Parliament usually re-assembles is fast approaching, the members of the medical profession should bear in mind that, although the necessity of a reform in the state of that profession may be regarded as a conceded question, the *time* at which this most desirable object may be accomplished, will depend, in a great degree, upon their own exertions. It is generally, we admit, a matter of great difficulty, to effect a reform of any existing abuse. Descartes inferred the fact of his existence from his rationality; but governments and legislatures, for the most part, assume the converse of the Cartesian proposition, and infer the rationality of a system, from the fact of its existence. A system or institution exists, and has long existed,—therefore the system or institution is reasonable; this is the logic of legitimacy; this is the strong-hold in which the champions of existing institutions intrench themselves; this is the head-gear on which they delight to find that the force of reason or philosophy can make no impression. Fortunately, however, the obstacles which reformers generally have to encounter, do not stand in the way of medical reform; and if the members of our profession be only true to themselves—if they manifest a degree of energy and activity corresponding to the importance of the objects they have in view, namely, the vindication of their just rights, and the re-establishment of their interests, on a basis which may secure their own dignity and independence, and entitle them to the respect and confidence of the public;—we look forward not only to a certain, but a speedy triumph. The following are some of the reasons on which we found our expectations of a *speedy* triumph; first, a reform of the abuses connected with the medical profession is called for by the public; secondly, it is called for by the great body of the profession to which the reform is to be applied; and, thirdly, there is no indisposition on the part of the legislature, to carry such a reform into effect. We shall say a word or two on each of these points.

To suppose the public indifferent to the reform of medical abuses, would be to suppose them indifferent to their own health and safety. Not a week passes, without bringing into notice some fresh humiliating instance of the state of degradation to which the profession has been reduced, and without impressing upon the public mind the necessity of medical reform. *The Times* Journal, one of the most unerring indicators of the state of public feeling, has declared that the question of medical reform is one of paramount importance, and that it will be one of the first duties of the legislature, to take into its consideration the means of "cleansing the Augæan stable of medical corruption." We do not allude to *The Times* as one of the surest indicators of the state of public feeling on this subject because we participate in the vulgar and illiberal notion of those who attribute to that journal the habit rather of following, than of leading public opinion; but because we believe that the strong language resorted to, on this occasion, by a Journal exercising so much sagacity and penetration on questions of great public interest, may be considered a fair test of the notoriety of the abuses against which its animadversions were directed. The influence of journals, and public opinion, act reciprocally on each other; but the influence of journals, or journalism, as this power is now designated by a people who are beginning to reap its inestimable benefits, commonly gives the first impulse and direction to public opinion. While we acknowledge the powerful aid and co-operation of *The Times*, and other journals, it is a source of honest satisfaction to ourselves to reflect, that our own exertions have contributed in no slight degree, to bring the question of medical reform to a crisis. Low as the medical profession stands in the estimation of *The Times*—degraded as we are compelled to admit it to be, through the influence of a corrupt oligarchy, it was in a state of still more deplorable debasement, when THE LANCET commenced its labours. Its members were then not only degraded, but subjugated; not only oppressed, but reduced to a state of abject submission to their oppressors. Destitute of a rallying point, they were at once trampled upon, and insulted by the corruptionists, who have since characterised the state of torpor into which the profession had sunk, as a state of respectable repose—*ubi solitudinem faciunt, pacem appellant.* By establishing a free medical press, THE LANCET gave the first blow to this system of tyranny, cupidity, and corruption; we roused the profession to a sense of the injuries and indignities which have been heaped upon them, and to a spirit of resistance, which must terminate in the overthrow of an oligarchy, now as crestfallen and feeble, as it was then insolent and overbearing.

Another fact from which we augur the speedy triumph of the cause of medical reform, is the unanimity with which that reform is desired by the great body of the profession. In this respect, the task of removing medical abuses presents much less difficulty than that which reformers generally have to encounter. Parliamentary reform has never made much progress in this country, because the body sought to be reformed has never seriously desired to effect its own amelioration. It is a hard matter to deal with a patient who refuses to take the only remedy that can cure his disease, especially where, if the smallest violence be used to compel the swallowing of physic, the patient is strong enough to throw his surgeon out of window. In the case of medical reform, there are no such difficulties to contend with; the public desires to see the cure effected, the surgeon is willing to administer the remedy, and the patient is both ready and anxious to take it. It is not necessary to prove directly that the great body of the medical profession are friends to reform; but we may show, *e converso*, by taking a glance at the *tail* of the profession, that the anti-reformists are confined to that unseemly excrescence of the body medical. The enemies of medical reform may be divided into two classes, the *Bats* and the *Pures;* the *Bats*, consisting of the society for the propagation of darkness, and the *Pures*, comprehending several varieties of the same species, who are sufficiently disposed to support any change of system, by which their own immediate interests might be promoted, but all of whom are, upon principle, opposed to a rational, comprehensive scheme of reform. We do not profess to be acquainted with the precise nature of the principles avowed by the different orders of *Pures*, but a recent printed declaration of Dr. Uwins, who is a *pure* licenciate, has enabled us to form a conjecture as to the pretensions of the body to which he belongs. Extraordinary claims to purity among the softer sex, are commonly considered as very equivocal symptoms, and such pretensions may, by parity of reason, be regarded with equal suspicion among the pure licentiates. The feeblest of physicians promenade their purity, as the frailest of the fair sex are in the habit of insisting on the severity of their virtue. Dr. Uwins has announced that it is his fixed determination never to meet a surgeon in consultation on a medical case. He has no objection—condescending creature!—to meet MR. LAWRENCE or SIR ASTLEY COOPER, as private gentlemen, but he will never consent to meet them in consultation on a medical case! In this respect the Doctor declares that his purity has been hitherto intact; and in this respect he has resolved, let him be importuned by what blandishments he may, to die a *maid*! Poor Dr. Uwins! He evidently belongs to a class of practitioners, who never take a pen into their hands for any other purpose than that of writing a prescription without *writing themselves down*, as DOGBERRY hath it, and gratuitously letting the public into the secret of their own imbecility. We will whisper into the Doctor's ear a fact, of which he seems wholly unconscious, namely, that the public do not care two straws about his purity; and that if he adheres to his resolution, and dies as aforesaid, the catastrophe may, as in the case of most other intact old maids, be ascribed to the simple circumstance of his never having been *asked*. We were about to make some observations on the *pure* surgeons, but want of space compels us to postpone this branch of the subject. We promise on a future occasion *to demonstrate the whole tail*, and to show that not a single anti-reformist is to be found in the sound body medical.

It is evident that there can be no indisposition on the part of the legislature to support medical reform, because every member of the Legislature is directly interested in the removal of abuses, by the continuance of which, his own health and life, or the health and lives of his dearest connexions may be compromised. All party or political views yield to this paramount consideration. Our country, no doubt, comprehends all the charities of human life; but true patriotism, like practical charity, begins at home; and it is the first duty of a public man, to take care that the health and safety of his own fire side receive no detriment.

But, though there be few serious obstacles in the way of medical reform, it is not the less incumbent on the independent members of the medical profession, to exert all their energy and activity in the promotion of that object; for no reform can be effected without such exertion, and the vantage ground which we now possess, may be lost or deteriorated by inertness and inactivity.

COLLEGE OF PHYSICIANS.

THE President and Censors of the Royal College of Physicians, in consequence of false reports which have appeared in various publications, owe it to the College and themselves to make the following declaration:—

They are fully sensible of the duty devolved upon them by their Charter, confirmed by Act of Parliament: nor will they ever abandon any prosecution entered into against persons illegally practising as physicians, whenever the evidence of such irregular practice is clear enough, in the opinion of their legal advisers, to render an application to a court of justice expedient.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AN attempt is at present making to compel the censors of this college to allow persons who have served their apprenticeships to surgeons, not members of this college, to be examined by the censors with a view to the practice of their profession in any part of Ireland.

On Friday last, Mr. Serjeant Blackburne applied to the Court of King's Bench, Dublin, for a mandamus, calling on the Court of Censors of the Royal College of Surgeons, in that city, to show cause why they refused to admit Mr. John Leslie, who had served his apprenticeship to a surgeon in the north of Ireland, and subsequently obtained a diploma from the College of Surgeons, in Glasgow, to an examination by them (the Censors) for letters testimonial. This College had refused to admit him to the examination he sought, on the ground that he had not served his time to a "regularly-educated" surgeon. It appeared, however, that the charter only specified "a regularly-educated surgeon," without defining the term, and the College had thought proper to confine the examination exclusively to them who have served their time to the members of the College itself. The learned Serjeant maintained, that they had no right to refuse an examination to any person who had served his apprenticeship to a regularly-educated surgeon, member of any of the colleges of surgery in the united kingdom.

The court granted the conditional order at once. On Tuesday, Mr. Perrin, K. C., came into court on behalf of the Royal College of Surgeons, and obtained time for the college to show cause against the order on the first day of next term.

Thus the matter stands; but the plaintiff is resolved to put the College to the proof of their assumed right. If the question be divided against the College, they must admit the apprentices of all English and Scotch surgeons who seek for an examination. The cause has excited very considerable interest throughout the profession in Ireland.

Pathological and Practical Researches on Diseases of the Brain and Spinal Chord. By John Abercrombie, M.D. Fellow of the Royal College of Physicians of Edinburgh, &c. Waugh and Innes, Edinbugh; M. Ogle, Glasgow; Westley and Tyrrell, Dublin; James Duncan, and S. Highley, London. 1827. 8vo. pp. 444.

The high reputation which the author of this work has acquired, not only as a practitioner of the greatest talent and experience, but also as a pathological writer, led us, before perusing these pages, to anticipate a performance of no ordinary kind; and although the pathology of the brain and nervous system be perhaps the most difficult and abstruse subject within the whole range of medical science, and one which has hitherto, in a great degree, baffled the efforts of medical men to unravel, yet, conceiving that any difficulty could be surmounted by the candid and inductive mind, we indulged the hope that the researches of Dr. Abercrombie would throw considerable light on the nature of those diseases to which he has directed his attention. Nor have these anticipations and hopes been reared without foundation; for this volume, free as it is, almost entirely from every thing like speculation and theory, will be found to contain a greater mass of information on the pathology of the brain and nervous system, and more practical and useful deductions, than any work which has ever appeared on the subject.

The clear and systematic manner in which the author has advanced through his difficult investigations, and the evident labour which he has bestowed on every point, together with the number of cases and dissections he has collected to elucidate and establish his views, are in the highest degree calculated to impress on the mind of the reader, the truth of his statements and doctrines.

The work consists of three distinct portions, which are devoted to the consideration of the pathology of the brain, spinal marrow, and nervous system.

The diseases of the brain are considered under three classes, the inflammatory, the apoplectic, and the organic; but this the author admits must be accounted rather as an artificial than a natural arrangement.

> "Peculiar difficulties (says Dr. Abercrombie) attend the investigation of inflammatory affections of the brain. In the inflammatory diseases of other organs, we are generally able to trace the proper symptoms of the inflammations through the whole course of the disease, and to make allowance for any incidental combinations by which they may be modified; but from the rapid effects which all acute diseases of the brain produce upon the sensorial functions, the patient generally becomes, at an early period, unable to express his feelings, and the proper symptoms of the disease are lost amid the suspension of all the faculties, to which we give the name of oppression of the brain."

It is therefore to the first symptoms in the treatment of the disease, that the practitioner ought to pay the greatest attention; and of the manner of distinguishing these, the reader will find a very full and able account, although they admit of much variety.

" In all the forms of this dangerous affection, there is great variety in the symptoms, and much observation is required to put us fully upon our guard against the insidious characters which many of the cases assume, and the deceitful appearances of amendment which often take place in all the forms of the disease. Even in those cases which have assumed the most formidable aspect, every alarming symptom may subside;" yet with proper attention they may in general be distinguished.

After having fully discussed the symptoms, the author enters upon the consideration of the principal seats and terminations of the disease, and this is the part of the work which we have perused with the greatest pleasure. His opinions on the nature of acute and chronic hydrocephalus are well deserving of attention. Acute hydrocephalus, he conceives, is always in the beginning an inflammatory affection, and hence it frequently happens, that the patient dies with all the symptoms of hydrocephalus, and yet no effusion of serum may have taken place.

" There is, however, another source of serous effusion, entirely distinct from this, viz. interruption of the circulation in the veins in any part of the body. In this manner, we see a tightly bandaged limb become œdematous below the seat of the pressure, and we find anasarca of the whole, or part of a limb, produced by the pressure of tumours, and ascites arising from induration of the liver. Whenever such interruption occurs in the circulation of a vein, it appears that increased effusion takes place from the exhalent branches of those arteries with which the vein is more immediately connected, depending probably upon a state of congestion in these parts, which, in its effects, is nearly analogous to inflammation. Such a state of impeded circulation evidently takes place in the brain, from a variety of causes; such as the pressure of tumours, chronic disease of the sinuses, tumours on the neck, certain diseases of the lungs and of the heart, and probably from that very remarkable condition of the brain to which I have proposed to give the name of simple apoplexy. From serous effusions produced by such causes as these, probably arise those affections which have been called chronic hydrocephalus and serous apoplexy."

Ramollissement of the brain arises, he conceives, from two causes; 1st, an acute inflammation of the brain, and then it is generally found in the young and plethoric; here he differs widely from some of the French pathologists, and in particular, Rostan; and, 2dly, it may occur without any preceding inflammatory symptoms, and then he thinks it is commonly produced by disease of the coats of the arteries, for instance ossification.

" When we compare the facts now alluded to, with the observations of M. Rostan and his friends, I think we may arrive at a principle by which the apparent difference may be reconciled. The principle which I refer to is, that this peculiar softening of the cerebral matter is analogous to gangrene in other parts of the body; and that, like gangrene, it may arise from two very different causes; these are inflammation, and failure of the circulation from disease of the arteries. The former I conceive to be the origin of the affection which I have described, and the latter to be the source of the appearances described by M. Rostan. If this doctrine be admitted, the difficulty is removed; and I do not see any good objection to it."

In the illustration of this very interesting part of the subject, many well-marked and conclusive cases are adduced.

Dr. Abercrombie employs the term " meningitis," to designate only the inflammation of the pia mater and tunica arachnoides, these two coverings of the brain being generally inflamed together.

Of the causes of the different varieties in the terminations of inflammation of the substance of the brain, the author candidly admits, that he is unable to offer any well-grounded explanation.

" On this interesting subject, however, we have not at present a sufficient collection of facts, to enable us to advance to any general statement in regard to the symptoms, or to refer particular symptoms to the particular seats or terminations of the disease. But there are numerous facts of very great interest which deserve to be recorded, without attempting any thing farther than a simple statement of them in connexion with the principal morbid appearances. They refer chiefly to the affection in the various conditions of simple inflammation, ramollissement, suppuration, and ulceration, and to some interesting phenomena connected with the disease in a chronic form."

We now come to the treatment of the diseases arranged under the inflammatory, and next to copious bleeding; the author has the best opinion of powerful and long-continued purging. In many cases, the croton oil given in large and repeated doses acted with extraordinary power.

"In all the forms of the disease, active purging appears to be the remedy from which we find the most satisfactory results; and although bloodletting is never to be neglected in the earlier stages of the disease, my own experience is, that more recoveries from head affections of the most alarming aspect take place under the use of very strong purging, than under any other mode of treatment. In most of these cases, indeed, full and repeated bleeding had been previously employed, but without any apparent effect in arresting the symptoms. The most convenient medicine for this purpose is the croton oil."

The consideration of the apoplectic affections is arranged under three heads: 1st, those primarily apoplectic—2dly, those which begin with a violent attack of headach, and pass gradually into apoplexy—and 3dly, the paralytic. Then the attack itself he considers to arise from three causes; 1st, from a diseased state of the vessels of the brain, but without any effusion; 2dly, from serous effusion; and 3dly, from extravasation of blood. Of these, apoplexy from extravasation ofblood is by far the most fatal. He conceives that it arises in general not so much from an overloaded state of the arteries as from the disease of their coats.

"In the most common form of this affection, in which the hæmorrhage proceeds from a vessel in the substance of the brain, I have supposed the rupture to take place from disease of the artery itself, without any relation to that congestive or hæmorrhagic condition which seems to constitute the state of smple apoplexy. Such disease accordingly, will be very generally found to exist in cases of this class. It consists in some instances of ossification of the arteries in various places, and in others, of that peculiar earthly brittleness which Scarpa has described as leading to aneurism."

Confirmed paralysis almost always depends on the effusion of blood, which becomes contained in a sort of cyst. The coagula are frequently absorbed, and then the patients recover till another attack reproduces the affection.

With the treatment of apoplexy, we need hardly occupy the time of our readers, as that is a part of the subject on which it was impossible for the author to bring forward any thing new. Suffice it to say, that Dr. Abercrombie deprecates the use of blisters in the commencement of the disease. As an Appendix to this part of the work, are added several ingenious conjectures, in regard to the circulation of the brain, from which he attempts to prove that the remarkable derangements depend not so much on a general plethora of the vessels of the brain, as on the due equilibrium of them being overturned.

"It is probable that the source of these remarkable derangements in the brain, in as far as it is within our reach, is to be sought for in an interruption of the due relations which ought to exist betwixt the arterial and venous systems of the brain. On this subject there are certain principles which appear to result from peculiarities in the structure of the head, and which do not apply to any other organ in the body."

These opinions are supported by the dissections of several patients who had died from bleeding, and in whom the sinuses of the brain were found not to be empty, but on the contrary loaded with blood.

Hence it is that Dr. Abercrombie deduces his opinion that bloodletting is beneficial in apoplexy, not by emptying the vessels of the brain, but by diminishing the impetus of the circulation in them.

These are the only hypothetical statements which are to be found in this highly practical work. Then come the organic diseases of the brain, which comprehend the consideration of tumours, depositions of lymph, tubercular disease, induration of the cerebral substance, ossifications, hydatids. These are treated of separately, and the peculiarity of the symptoms which they give rise to, fully and individually explained.

Having finished the pathology of the brain, the author proceeds to that of the spinal marrow, which is a part of the subject on which it is unnecessary for us to enter, for the pathology of it cannot differ materially from that of the brain, which in every particular it so nearly resembles. This highly practical volume, which concludes with an outline of the pathology of the nervous system, adds another proof, if any were yet required, to show that a knowledge of diseased structures is the only sure and legitimate basis on which any medical opinions or treatise can be founded.

The work is not altogether free from faults,—it is in many parts prolix, and the cases are not told with much life or vigour; but *nemo sine vitiis nascitur*, and these are faults of a very trivial kind. We need hardly add, in concluding our analysis, that we strongly recommend the work as one of great value to every practical reader.

CONTINUATION OF THE CASE OF ANEURISM OF THE ARTERIA INNOMINATA, SUCCESSFULLY TREATED BY TYING THE SUBCLAVIAN ARTERY.

By James Wardrop, Esq., Surgeon to the King.

To the Editor of The Lancet.

Sir,—May I request that you will do me the favour to insert the further report of the case of aneurism of the innominata, wherein I tied the subclavian artery, in order that, from the extensive circulation of your invaluable Journal, the successful result of the case may become generally known.

I have the honour to be, Sir,
Your's, &c.
James Wardrop.
Charles Street, Dec. 5, 1827.

In a former Number of this Journal, I gave an account of the case of aneurism of the arteria innominata, wherein I placed a ligature on the right subclavian, for the cure of that disease. I now propose to fulfil the promise I then made, of reporting at a subsequent period, the further progress of this interesting case; and I am more particularly anxious to do this now, in order that the very imperfect statement of the case, as given by Dr. Barry in a speech delivered by him at the Westminster Medical Society, may not mislead the public on this subject.

When I first tied a ligature on the distal side of an aneurism, instead of placing it, as in the usual manner, on its cardiac side, I considered that I had established an important principle for the treatment of many aneurisms wherein a ligature could be placed beyond the tumour, and no vessel intervene between that ligature and the heart, which might still carry on the circulation.

Nearly fifty years had elapsed from the period when such an operation had been proposed by Brassadot, and yet, in only two instances, excepting those cases mentioned by me, had it been attempted or performed, either in this country or on the continent of Europe; and although some writers on aneurism had advocated the principle of such an operation, the circumstance of the complete stoppage of the circulation was always deemed a *sine qua non* in securing its success. The chance of a fit case occurring, under such circumstances, must have been extremely small; and this may, perhaps, be considered the reason why the operation had been so seldom practised. But many eminent surgeons argued, not only against the probability of fit cases occurring, but also completely denied the truth of the principles on which it was founded. Since, however, the publication of the case of carotid aneurism, to which I have alluded, along with the appearances which were found after death in the patient operated upon by Mr. Lambert, I have reason to believe, that not only the principle is now universally admitted, but that in future the operation will, without hesitation, be adopted.

The successful result of some of the operations performed on these principles, together with some observations on the dissections which I have made, has, however, led me to advance a step further; and I fain hope, that I shall be enabled to establish a new principle for the cure of many other aneurisms, which have hitherto been considered by all to be beyond the reach of art, in cases where the disease is so situated that neither the Hunterian operation is practicable, nor could the new operation be successful, provided the doctrines of those who proposed and advocated it were correct; viz. that a complete stoppage of the circulation of blood in the aneurismal tumour, is necessary to effect the coagulation of the blood contained in the sac. It is to this point I am now particularly desirous to direct the attention of the profession, as on the establishment of the subsequent facts rests entirely the propriety of the operation performed in the case immediately under consideration, as well as a mode of curing certain aneurisms, that I am about to recommend.

Now it is a singular circumstance that surgeons, up to the present period, will insist, that in order to allow the necessary process of coagulation to go on in an aneurism, it is necessary to put a complete stop to the circulation of the blood in the tumour, when it is well known, and numerous instances are on record, where, after the Hunterian operation had been performed in cases of popliteal aneurism, that the tumour for weeks, and even months, continued to pulsate, and yet the coagulation of the contents of the sac was ultimately established. A knowledge of this circumstance alone would, we might suppose, have led to the adoption of Brassadot's principles of operation in cases of aneurism, wherein the circulation of the blood in the tumour could be only in part arrested, and would have led pathologists to inquire, what is the necessary degree to which the circulation in the tumour must be diminished, in order to admit of the coagulation of its contents. But by far the most interesting and conclusive arguments to elucidate this important point, which I am so desirous to establish for the cure of aneurism, are to be deduced from a series of observations which I have been enabled to make on the mode which nature employs in shutting up an aneurismal tumour, in what is called the spontaneous cure of the disease; and it is a curious circumstance that the natural, or spontaneous process, does not effect a cure on the principle of the Hunterian operation, by arresting completely the passage of the blood into the sac, and thus at once produce its coagulation, but is in strict conformity with the operation I shall endeavour to establish, the impetus of the circulation in the sac being diminished by the formation of a barrier in the artery, beyond or at the distal side of the aneurism.

In a case of aneurism of the innominata, my friend, Mr. Mackelcan, found that nature had nearly completed a cure of the disease on this principle. The carotid artery was plugged up, and the large aneurismal swelling was filled with a coagulum, leaving only a comparatively small opening for the blood to pass into the subclavian artery. I have seen several cases which illustrate the same important pathological fact, and prove beyond a doubt, that blood can coagulate in an aneurism, so as to strengthen the parietes of the sac, and ultimately obliterate its cavity, without the circulation through the sac being in the first instance either suddenly or entirely interrupted.

It was a knowledge of this fact that led me to perform the operation in Mrs. Denmark's case. In this patient, nature had already instituted a curative process, by arresting the circulation in the carotid, and when I found that this alone was not sufficient to arrest the enlargement of the aneurism, I then determined on placing a ligature on the subclavian, and in so doing I conceived that I was imitating the process which nature herself had commenced. I was perfectly aware, that I was thus led to act on a new principle in this operation, founded on a series of correct observations of the steps of the natural process, and was also aware of the obstacles I had to surmount, from the long-established opinions, that a complete cessation of circulation, in an aneurism, is requisite for the coagulation of the blood contained in it. Impressed with this truth, that the formation of a coagulum may take place in an aneurismal sac without the circulation of blood being completely intercepted through it, I was naturally led to consider the important question, to what extent is it necessary to diminish the momentum of the circulation through an aneurism, *before* the blood contained in it will coagulate? If I were able to establish this point, it was evident that I could at once determine, with accuracy, those cases of aneurism wherein it would be practicable to cure the disease by tying the artery, or arteries, at the distal side of the tumour. Now, in examining those cases where nature had performed a spontaneous cure, on the principle of forming, by degrees, a barrier to the circulation in the sac by an obstruction in the vessel beyond it, it appears indisputable, that a process of coagulation in the aneurismal sac must have been begun when the momentum of blood in it could have been but little diminished, no more disturbance taking place in the circulation than what might be supposed to be the effect of an enlargement of the calibre of the arterial tube, at the diseased part; neither can it be supposed that the vessels which were obliterated, in the cases to which I allude could undergo any thing like a sudden or instantaneous obstruction; on the contrary, whatever the process may have been, the arteries seemed to have undergone a gradual process of obstruction, indicated by the slow and gradual diminution in the force of their pulsation. That a *moderate* degree of diminution in the impetus of the blood of an aneurismal sac is adequate to allow the coagulating process of the contained blood to go on, seemed to me proved from the pathological facts which I have now stated; still, however, the exact quantity of diminution necessary to effect this purpose, remains a matter of conjecture.

To render more intelligible the principle I am endeavouring to establish, let me suppose, by way of illustration, that the right carotid and subclavian arteries, into which the innominata is divided, are of equal diameters; it appears from those cases where the spontaneous cure had commenced in the aneurism of the innominata, that the closure of one of these great branches was not sufficient to allow of the complete consolidation of the tumour. Suppose, therefore, that besides the carotid, the circulation through the subclavian artery was arrested, a very considerable diminution to the circulation of blood in the tumour would now be produced, and the anteria innominata, in place of having to transmit blood through the carotid and subclavian vessels, would have only to supply those branches of the subclavian which come off nearer the heart than the point where the ligature had been applied. Suppose that these branches, which are usually four in number, when taken collectively are equal in diameter to the trunk, it will then follow, that if the right carotid be impervious, and the subclavian be obstructed where it emerges from below the scalenus muscle, no blood will pass through the innominata, except such a quantity as is sufficient to supply the four branches of the subclavian, and which quantity will be only one-third of the mass that would circulate through the innominata, were its two great branches not obstructed; hence the blood contained in a sac of an aneurism of the innominata, would have its bulk diminished two-thirds.

The result of Mrs. Denmark's case, about to be related, affords a proof of the correctness of this deduction, and nothing but a series of observations on cases of aneurism, where the same principle of cure is adopted, can establish the important practical rule, and demonstrate the precise degree, to which it is necessary to diminish the impetus of circulation in an aneurism, in order to admit of its fluid contents undergoing the coagulating process.

Case.—In the beginning of August, immediately after my last report was published, and one month subsequent to the operation, Mrs. D. left London with the view of establishing, through the influence of open air, gentle exercise, and milk diet, the more complete recovery of her health, which from the time the operation was performed had been gradually improving, so that at the period of her removal scarcely a vestige of the aneurism remained, except a great degree of weakness and emaciation; which, independent of the existence of the aneurism, might probably have been produced by the long confinement and rigid depletory treatment to which she had been previously subjected. The only appearances of the original disease which still remained, were a considerable degree of difficulty of respiration, much aggravated by walking, and a slight, scarcely perceptible pulsating enlargement, situated immediately above the sterno-clavicular articulation. The distressing cough, sense of impending suffocation, severe pains in the neck and shoulder, the constant headach, and the tumour, which at the time the ligature was applied to the artery had attained the size of half a turkey's egg, had now very nearly disappeared, the wound had heated, and indeed hardly a mark remained to point out the former existence of the aneurism.

In this condition she went to the country, from which she derived immediate advantage. Her strength daily increased, dyspnœa, in a corresponding degree diminished, and her general appearance improved perceptibly to those around her. In the course of a very short time she was able to walk out into the open air, a recreation which she had been entirely deprived of for many months, and the severity of the dyspnœa had now diminished so much, that she could ascend a staircase with comparative ease. About this period, (the end of August,) the symptoms of her disease had so completely vanished that Mr. Chapman, who examined her in the country with great accuracy, informed Mr. Lawrence, in Bartholomew's Hospital, that unless he had been previously acquainted with the nature of the case, he could never have discovered that aneurism of any of the large vessels of the heart had ever existed.

The pulsation of the right carotid artery was now distinct, though by no means so strong as that of the left. The right radial artery was scarcely perceptible, while that of the left conveyed a peculiarly hard thrilling sensation. On application of the stethoscope to the thorax, the pulsations of the heart were found to be natural, but at the upper portion of the sternum, a slight impulse was experienced, as if arising from some considerable enlargement of the origin of the arteria innominata. This impulse was however scarcely to be discovered, except after the patient had been making any bodily exertion, or when her mind had been agitated by any questions which seemed to excite in her a suspicion of the existence of any supposed danger. Her countenance had lost entirely that anxious expressive look, which was formerly so observable; and indeed her whole appearance bespoke the enjoyment of tolerable, though certainly feeble, health. About a fortnight ago, she was attacked, after exposure to cold, with a severe bronchitis, and a consequent return of the dyspnœa, to a severe degree, which rendered the abstraction of blood necessary; by means of which, and attention to diet, she has regained a nearly perfect state of health. On her return to town, six weeks ago, it was found that a perfect cure had been effected. Not a vestige of the tumour remained to mark its former position. The dislocation of the clavicle, described in my former report, no longer existed, and all the distressing symptoms of her alarming disease had completely vanished. She expressed herself comfortable and happy, and indeed seemed now to enjoy good, though feeble health. A slight degree of dyspnœa was the only symptom of which she now complained.

Such are the further particulars of this interesting case, and such the successful termination of an operation, the principles of which, seem to me, to be now perfectly understood and completely established.

GUY'S HOSPITAL.

CASES OF ANEURISM.

Aneurism of the upper part of the Femoral Artery.—Operation of tying the External Iliac Artery, by Mr. Morgan.

It is now, perhaps, generally admitted, that in order to the successful treatment of an aneurismal tumour, it is sufficient, in many instances, for the stream of blood entering the part to be diminished or interrupted, simply; and that it is not necessary for the ingress of blood to be absolutely and entirely prevented. The fact of a spontaneous cure having been observed in some cases, meanwhile circulation was going on through the vessel, and blood of course entering the aneurismal sac—the occasional recurrence or continuance of the pulsation in an aneurismal tumour, after tying the main arterial trunk leading thereto, and the case still ending successfully, are the grounds of this important deduction in the pathology of aneurism. The late revival of the operation of tying the artery beyond the tumour, has also tended still further to the establishment of this principle in the cure of aneurism; it having been found that the blood in these cases still entering the tumour, yet in a diminished extent, the curative processs took place.

In the following case, where the aneurism was seated at the upper part of the femoral artery, and a ligature was applied to the external iliac, it is a curious fact, that a *diminished* pulsation was present in the tumour until the eleventh day after the operation, when it suddenly ceased. The contents of the sac, however, notwithstanding pulsation was going on, became consolidated and partially absorbed—observing, in fact, the ordinary curative process of aneurismal tumours: subsequently, as will be seen on perusal of the case, inflammation and suppuration of the contents of the sac, occurred, but this was, after the *cure* (strictly speaking) had been effected, and therefore does not affect the general principle laid down.

Case.—S. Large, a stout healthy-looking man, fifty years of age, was admitted into the Hospital on the 10th of October, under the care of Mr. Morgan, on account of a pulsating tumour in the left groin. The patient said that he had been a hard-working man—a fisherman, and had been in the habit of drinking freely of beer, but contrary to the custom of his *tribe,* had not indulged in spirit-drinking. He said, that he had enjoyed tolerable good health until affected by the disease in the groin, which commenced eighteen months previous to his admission. He at first experienced a pain at the inner part of the thigh, which was especially increased at night, and he considered it to be of a rheumatic kind. He had also a sense of numbness in the heel, and a small swelling in the groin, which, however, did not pulsate until about two months befere he came to the Hospital, and he attributed the circumstance of its pulsation to his having carried a very heavy weight about this time. The tumour had gradually increased, from the period of its commencement, and in some degree interfered with the motions of the limb, and to such an extent ultimately that he was prevented from pursuing his ordinary occupations.

Upon examination of the part, a prominence was distinctly seen midway between the anterior superior spinous process of the ilium and the pubes, over the site of the femoral artery. The tumour was observed to pulsate strongly, and on grasping it was found to be firm, slightly yielding to strong pressure, but elastic, apparently emanating from the femoral artery, immediately beneath

Poupart's ligament, and then, as it were, inflected over that process. That it was not a tumour arising from the artery under and above the ligament, was judged from the circumstance of being enabled, to a certain extent, to pass the fingers behind the tumour; still the swelling was so firmly connected with the parts above, that pulsation was communicated to some extent around, and, in some measure rendered the case dubious, as to the amount of disease.

Upon this, the treatment of the case *hinged*. If it could be ascertained that the external iliac artery were involved in the disease, then, as Mr. Morgan observed, the operation of tying the artery *below* the tumour would be admissible; but if (and he believed such to be the case) the tumour above the ligament was simply formed by its bending over from below, then it would be possible to avoid it, in tying the *external iliac artery*. Sir Astley Cooper having been requested to see the patient, expressed his opinion of the propriety of tying the external iliac; and this operation was accordingly performed on the 16th of October, six days after the patient's admission.

Operation.

A semilunar incision was made through the integuments above Poupart's ligament, the convexity of the incision being downwards, and within about three-quarters of an inch of the ligament. The tendon of the external oblique muscle was exposed and cut through; and the operator now abandoning the knife, proceeded under the edge of the internal oblique and transverse muscles with his finger, and having succeeded in doing this, endeavoured to get the finger behind the peritoneum. Here, there was considerable difficulty experienced, from the circumstance of the aneurismal sac having extended upwards and formed intimate adhesions with the peritoneum, which were separated with great difficulty. It was found too, that the sac was very thin, so that great caution was requisite. The artery being at length exposed, a single ligature of silk was passed round it, one of the ends being cut off. The pulsation in the tumour was greatly checked, but not entirely prevented, by the application of the ligature. The edges of the wound were brought together, and the patient was put to bed, being very little exhausted by the operation.

On the day after the operation, the patient was in every respect comfortable; he had passed a tolerable night, and only complained of occasional pain in the aneurismal sac, at which pulsation was still very plainly to be felt. On the following day, the 18th, the pulsation in the sac was rather more distinct, according to the opinion of Mr. Morgan; there was a slight blush of inflammation on the outer part of the wound, to which spirit lotion was applied

Nothing material occurred until the evening of the 22d, when the patient became feverish and very restless—the pulse was quick and small, the tongue furred, and the abdomen tumid: these symptoms, however, subsided under the use of a purgative, with a subsequent dose of calomel and opium. On the 24th, it was noticed that the pulsation in the tumour had somewhat lessened, the swelling had become much consolidated, and materially diminished since the operation. On the 26th, *the pulsation in the sac suddenly ceased*, and the change was so sudden, that the patient himself was conscious thereof. A report made on the 31st, the fifteenth day after the operation, states that the wound is healing fast, but that the ligature at present remains firmly attached. During the next fourteen days, nothing of importance transpired, but at about the expiration of this time, the ligature not having yet separated, it was apparent that it was the cause of much irritation. There had been pain in the site of the aneurismal sac, and some portion of matter was discharged on making pressure from the upper part through the wound; it became more evident in the course of a few days that partial suppuration had taken place within the sac. The ligature was detached on the 20th, beng *five weeks* from the performance of the operation; from this time to the 1st of December, when this report was concluded, suppuration had continued from the wound, but had gradually lessened, and a compress with a bandage were substituted for poultices, which had been applied for a considerable time previously. The man is much reduced, from the circumstance of the long-continued and profuse discharge of matter, but, under a generous diet, is fast recovering his health.

Aneurism of the Popliteal Artery.—Operation of Tying the Femoral Artery at the middle of the Thigh, by Mr. Key.

This operation was performed on the 30th of October, under the following circumstances:—The patient, a man of spare habit and dark complexion, thirty-one years of age, was admitted into Naaman's Ward, on account of a pulsating swelling in the right popliteal space.

He stated, on admission, that he perceived a small swelling in the ham-string about six weeks previously, and felt a stiffness about the joint: he had experienced pain in the leg for one month prior to admission. He was a baker, but had not pursued his avecation for some months. He was not conscious of having received any injury to the part. His general health was good.

There was a firm pulsatory tumour in the popliteal space, extending some way down between the heads of the gastrocnemii, and pressing out the external ham-string. The pulsations of this swelling were completely checked by making pressure on the femoral artery at the middle of the thigh; and continuing this pressure for some time, the tumour became greatly diminished.

Mr. Key performed the operation in the usual manner. The inner edge of the sartorius was readily exposed, and the vessel found. There was a small nerve running in front of the artery, which was separated; and in effecting this, a vein was wounded, which gave rise to considerable bleeding. Mr. Key said that it was a large branch passing to the saphena vein. A single ligature of silk was applied to the artery, and the wound closed by strips of adhesive plaster.

Nothing material transpired after the operation: the ligature came away on the sixteenth day, and the patient was completely cured.

AMPUTATIONS BY MR. MORGAN.

On Tuesday last Mr. Morgan amputated at the thigh, in two cases of diseased knee-joint. These operations are entitled to much praise. A double-flap was formed in each case; one of the limbs was removed in somewhat more *than a minute*, and the other, *under* the space of *two minutes*.

ST. GEORGE'S HOSPITAL.

SCROFULOUS DISEASE OF THE ANCLE JOINT. AMPUTATION BY MR. BRODIE.

Ambrose Lawrence, ætat. 25, with light-coloured hair and fair complexion, was admitted into this hospital, under the care of Mr. Brodie, on the 21st of October. He gave us the following brief history of his case:—

He has been a jobber in a coachmaker's yard, and has been accustomed to carry heavy weights. About ten years ago, an abscess formed at the ancle, which after a time burst, and several small pieces of bone were discharged through the opening: it remained open two years, and then healed. He continued quite well, and was engaged in a laborious occupation until last January, when some heavy substance fell upon his ancle, and deprived him, as he says, of the use of his toes. About a month after this he was seized with rheumatic fever, during the progress of which his ancle got worse, becoming red, swollen, and tender. After a short time, an abscess formed, several small pieces of bone were again discharged, leaving him in the following condition: the skin about the ancle is red and tense; there are several sinuses at the inner and back part of the heel, which lead down to a large portion of exposed bone, probably the os calcis. The slightest motion of the joint occasions pain; but pressure on the heel, or back part of the ancle-joint, gives him excruciating torture. He describes the pain as shooting from behind forwards; that it is constant, but worse at night. The discharge from the sinuses is copious, and of a thick consistance? His health is now materially affected; there is considerable emaciation, and his countenance indicates great suffering. His appetite is bad; tongue morbidly red and clean, and the papillæ are elevated; the pulse is small and quick, 110. He sweats copiously at night, and his rest is very much disturbed: his mind wanders when it is excited by any conversation. His bowels are open, and he has a slight cough. Mr. Brodie ordered a linseed meal poultice to be applied to the ancle-joint, and the following draught to be taken three times a day:

Infusion of cascarilla, one and a half ounce.
Diluted nitric acid, half a drachm. Mix.

He continued taking this medicine for a few days without any benefit, and it being very evident that his constitution could not withstand the disease much longer, amputation was proposed to him, to which the patient readily consented.

Operation.

Nov. 1. Mr. Brodie removed the leg below the knee to-day, in the usual manner, by the circular operation: there was a good deal of venous hæmorrhage, and five arteries were tied. As he complained of great pain after the operation, twenty-five drops of laudanum were gven to him. On dissection a large portion of the os calcis (certainly not less than one-third of it) was found to be so extensively diseased, that we might designate it dead bone. A large abscess was situated over this portion of bone, and a small quantity of lymph had been effused on the surface of the cartilages of the joint, but they were not ulcerated. The tarsal bones in the neighbourhood of the dead bone were so soft as to admit of being cut by a common scalpel. The tibia and the metatarsal bones appeared to be in a healthy state.

The patient passed a tolerably good night after the operation, and has gone on exceedingly well. Most of the ligatures came away at the first dressing; the patient's appetite has returned, and he is fast regaining his health.

CASE OF ERYSIPELAS.—MORE OF MR. KEATE'S "SOUND CHIRURGICAL,"

Hot Poultices—Cold Lotions—Burnt Brandy.

N. L., ætatis 31, a shoemaker, of dark complexion, sallow, unhealthy appearance, was admitted into this Hospital on Saturday, the 10th of November, with diffuse erysipelatous inflammation of the skin of the right leg. He was placed in Oxford Ward, under the care of Mr. Robert Keate.

When admitted, he gave the following account of his case:—Five days previously he had experienced much pain in the foot, and about two hours afterwards had a rigor, which was succeeded by febrile symptoms. At this time the foot became red, swollen, and painful: the redness first manifesting itself about the ancle: the inflammation gradually extended up the leg, and at the time of his admission occupied the whole of the limb: he was ordered to apply a linseed meal poultice to the leg and foot, and he was likewise directed to take a dose of aperient medicine; and after the operation of this, a dose of bark and ammonia every three hours. Thus much of the treatment adopted by the house surgeon, previously to Mr. Keate seeing the patient, which was on the Monday following, two days after his admission. At this period we had an opportunity of attentively examining the case. The patient was lying upon his back, with a dejected countenance, frequent and distressing hiccup, pulse quick, feeble and tremulous. The tongue was dry, and brown in the centre, white and moist on the sides; he was delirious, muttering to himself, and giving incoherent replies to questions, the bowels were lax.

With respect to the local symptoms:—When the bed-clothes were turned down, and the nurse proceeded to "undo" the limb, we perceived that there was a huge linseed meal poultice extending from the foot to the ham, and enveloping the whole of the limb, *except its fore part, on which was placed a thin linen rag, made wet with cold lotion!!*

The poultice at a moderate computation might be estimated as weighing three pounds, made "thick and slab" with linseed oil, of which some ounces were floating at the lower part. It was really quite luxurious to contemplate, and we should think was the *beau ideal* of Mr. Abernethy's "greasy poultice." Certainly—and our experience among cataplasms has been very considerable—we never witnessed any thing equal to it.

The whole of the integuments of the leg were of a dark red colour, and in some parts, especially over the shin, had a livid or ecchymosed appearance, and on the outer side of the leg and foot at different parts were clusters of minute vesications: the skin was tense and shining, and the whole of the limb swollen, but not to a great degree. The redness had extended about one third up the thigh, and its boundary was distinct.

Treatment.—The HOT POULTICES to be continued to the leg, together with the COLD lotion. Half a drachm of the powder of bark, with six grains of the carbonate of ammonia, and five minims of laudanum and one drachm of the tincture, with an ounce and a half of the decoction of bark, to be taken every three hours. Mr. Keate further directed that some "*burnt brandy*" should be given to the patient; being very precise in his directions that the brandy should be "burnt."* With a view, we suppose, of preventing the inflammation from extending further, and also by way of a "diverticulum" to the hiccup, this *bright* surgeon directed the application of a solution of lunar caustic to the skin, at the point where the erysipelatous inflammation terminated.

13th. The patient has had a restless night, the inflammation has not yet extended, nor does the leg appear to be so intensely inflamed as yesterday: the hiccup is rather less: the pulse quick and small. Ordered to continue the bark and ammonia, and *burnt* brandy: the *hot* poultices and *cold* lotion as before.

14th. The man is better to-day, has passed a good night, the tongue is brownish, but moist, the pulse has acquired more tone; the hiccup has not yet ceased, but is less frequent and distressing. The linen rags made wet with cold lotion are continued to the *thigh*, and as a *powerful* means of assisting the evaporation from this part, *the limb is comfortably tucked up, under a sheet, a brace of blankets, and a quilt, which are in direct contact.*

15, 16, The patient is in every respect better: the hiccup is now entirely gone, and the inflammation of the leg and thigh is subsiding. A slight black mark was perceptible, about the fourth day after the application of the caustic solution.

From this period, nothing material occurred: the stimulants were continued, and the symptoms gradually subsided. There was a small collection of pus, at the inner ancle, which was evacuated; at the conclusion of this report, Dec. 3, the man is quite well in health, and only remains in the Hospital on account of superficial ulceration on the outer side of the foot.

The house surgeon is positively delighted at the successful termination of the case:—we have heard him say, apparently with much exultation—"What would Lawrence have done with such a case?"

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* This "*burnt brandy*," we understand, is a sort of *Keatian* panacea for all cases of hiccup; no matter what may be the cause.

"PURE" PHYSICIANS.

To the Editor of THE LANCET.

> "But think, Dick, their cooks, what a loss to mankind,
> What a void in the world would *their* death leave behind!"
>
> *Letters of the Fudge Family.*

SIR,—Allow me to ask the "Physician" his reasons for supposing that the annihilation of the "pure" physicians would leave a void which the general practitioners could *not* fill up? He thinks *their* annihilation would be a loss to mankind! Permit me to offer my reasons for holding a contrary opinion. No one can more highly estimate than I do the examinations of qualification for general practitioners, the largest and most useful class, as they were denominated by the brightest living ornament of British surgery. But, will the physician have the hardihood to assert, that the tests of the attainments of "pure" physicians are only half as satisfactory? Will he deny that all (with but an insignificant number of exceptions) those "pure" physicians who have ornamented the profession were originally general practitioners; and that most of the discoveries with which they have enriched the world, were made while they constituted a portion of that "most useful class?" Will he deny, that the circumstauces under which "pure" physicians are generally consulted, are such as preclude the possibility of their benefiting the patient; and that not because the patient had been "duly drugged into danger?" to use the phrase of the lying "faculty."

That time, observation, and opportunity will qualify a man previously well grounded in the elementary and collateral knowledge of his profession, to assist his equally intelligent but less experienced medical brethren, is self-evident. But does the title of the "pure" physician imply such ability, or do the testimonials of his education, in order to obtain *that* title, lead us to expect it? Does the title of the "pure," in a vast majority of instances, indicate a necessity for, or a satisfactory evidence of, his knowing the cremaster muscle from a cod's head and shoulders; arsenic from antimony; or *parturition* from peritonitis? But enough of this.

Now for the "pures" good desert of the confidence and support of the general practitioner. Do the "pures'" every-day attempts to oust a stranger, from whom they have no expectations, in order to introduce a friend from whom they have, or for the benefit of some pet druggist and their own, by participating in the profits of the prescription?—Do the airs of affected superiority, too often assumed by the "pures," conduce to diminish the daily increasing dislike of the general practitioners? That exceptions to these cases do occasionally occur I know, but like angel's visits, they are few and far between.

With the public health—with the welfare and respectability of the profession—with the interests and advancement of science, and the cause of truth and independence—THE LANCET has ever been identified; and it will, I dare say, afford the "Physician" an opportunity of acquiescing in the justice of these statements, or of publishing their refutation.

With great respect I am, Sir,
Your most obedient servant,

Δ

ST. THOMAS'S HOSPITAL.

CASE OF COMPOUND FRACTURE OF THE SKULL, WITH DEPRESSION, ATTENDED BY SYMPTOMS OF COMPRESSION OF THE BRAIN.—OPERATION OF REMOVING THE DEPRESSED BONE, AND SUCCESSFUL RESULT.

WILLIAM CLARK, twelve years of age, was admitted into St. Thomas's Hospital about eight o'clock in the morning of the 20th of October, and placed in Henry's Ward, under the care of Mr. Travers.

He had sustained violent injury to the head, in consequence of a heavy piece of timber falling upon him, about half an hour previously; he was picked up in an insensible state, and brought to the hospital direct. There were two wounds, each of about an inch and a half in length, at the anterior and upper part of the left parietal bone; and on passing the finger into either of the wounds, a fracture, with considerable depression of bone, was readily ascertained.

The constitutional symptoms under which the boy laboured, were those indicative of compression of the brain, conjoined with that depressed state which universally succeeds to violent injury, familiarly known by the "stage of congestion." The pulse was small and intermittent, the surface of the body cold; the eyes open; the pupils widely dilated, and feebly obedient to light. The face and lips were exsanguineous; there was frequent spasmodic twitching of the muscles of the face and *right* arm; the boy had vomited once or twice; he answered questions when spoken to loudly, and was exceedingly restless.

Mr. Travers having seen and examined the boy soon after his admission, determined upon removing the depressed bone; with this view he enlarged the wound of the scalp,—in fact, making the two wounds continuous. It was now found that there were several portions of bone completely detached and depressed; these were removed without much difficulty, and the surface of the dura mater exposed to the extent of about two inches and a half; it was apparently uninjured, There was a portion of bone of about the size of a square inch, which was depressed, but this was simply elevated to the level of the surrounding parts, and not removed on account of its connexion posteriorly. There was not much blood lost: the boy spoke frequently during the operation: the edges of the wound were approximated by strips of plaster, and the lad then placed in bed, with strict orders that he should not be disturbed.

At *noon* he was apparently sleeping, his respiration was somewhat laborious, the pulse regular and about 85; the extremities were warm, there was no preternatural heat of scalp. In the *evening*, as we were informed by the dresser Mr. Ward, the face became flushed, the head very hot as well as the skin generally; the pulse upwards of 120, and sharp. He was bled from the arm to the amount of ten ounces, when approaching syncope ensued, and the pulse fell to about 100. A dose of castor oil was prescribed.

21. There is a considerable degree of coma; the fulse is frequent and sharp—130; the scalp is hot; the pupils are obedient to light; the breathing is laboured. He has vomited once; the tongue is white and moist; the bowels have not yet been moved. Repeat the castor oil, and bleed from the arm, to the amount of *eight ounces.*

22. The pulse this morning is soft and compressible; the respiration is more free; the tongue is white; there is less heat and pain of the head. The bowels were freely acted upon last night; he has taken nothing but gruel and tea.

Ordered to repeat the castor oil—to apply twelve leeches to the temples.

The wound was dressed to-day, and found to be suppurating at the edges, some pus oozed out from beneath the scalp, on making pressure: the general appearance was healthy. Ordered to apply a poultice.

23. The boy is more sensible, and is upon the whole improving: the bowels are kept freely open.

26. In every respect doing well; nothing material has occurred since the last report: there is a free discharge of healthy pus from the wound, a considerable portion of bone is denuded, and there are granulations springing up from the dura mater where that membrane is exposed. The pulsations of the brain, *synchronous with the heart's beat*, are very apparent at this part.

Nov. 7. From the date of the former report, until to-day, the patient was going on well. He now complains of pain in the back of the head, and the integuments are tender on pressure; the bowels are not open; the pulse is slightly accelerated.

Ordered, a dose of house medicine (salts and senna), and twelve leeches to be applied to the temples.

8. Not so well. There is much more febrile excitement, the skin being hot, the tongue furred, and the pulse quick and small. The puffiness of the scalp, and the tenderness, are extended; the eyelids and forehead are now swollen.

Ordered, to repeat the application of the leeches. The head to be kept wet with the spirit lotion, and as the bowels were only acted upon once by the house medicine, a dose of castor oil to be given.

9. Much the same. The swelling of the scalp has increased. Continue as before.

10. The whole of the integuments of the head are now so much swollen, as completely to disfigure the boy, and the upper lids swollen so as to close the eyes. Mr. Travers on visiting the patient to-day remarked to the pupils, that the present was a case of diffuse inflammation of the cellular tissue, above the tendon of the occipito-frontalis, being, in fact, what is called *erysipelas of the scalp*, which is so commonly observed to follow even the slightest injuries to this part. Mr. Travers further observed, it was a case in which some persons would cut down upon the parts, in order to prevent suppuration, but he was not an advocate for such practice. He directed twenty leeches to be applied to the scalp; five grains of calomel to be taken directly; and a drachm of the sulphate of magnesia, with twenty minims of the solution of tartar emetic, to be given in peppermint water every four hours.

The pulse is upwards of 120, the tongue covered with a white fur, but moist; the skin hot. There is no particular change observable in the wound.

11, 12. The patient is very much relieved by the means employed; the local as well as constitutional disorder being materially diminished. From the latter period, indeed, the patient went on gradually improving; but when this report was concluded, (Dec. 3,) he still continued in the hospital, the wound of the scalp not having entirely closed. No portion of the exposed bone exfoliated.

ERRATUM.

In Mr. Cooper's Letter on Erysipelas, p. 352, instead of "like amputation," *read* "like that of amputation."

[Correspondents and Literary Announcements in our next.]

THE LANCET.

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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture X.

Duties of the Accoucheur.

We have now, Gentlemen, to speak of the duties which devolve upon the accoucheur, in the management of a labour; duties which, though few, are by no means unimportant. If, when parturition begins, you make examination of the abdomen externally, you may generally find the uterus clearly enough distinguishable beneath the abdominal coverings, and forming a tumour there both hard and solid. If, further, an examination be made within, frequently one or two fingers may be passed into the mouth of the womb, and beyond this opening you may feel the cyst charged with water, sometimes distinguishing the presenting part. Even where the uterine mouth excludes the fingers, still if you place them between the os uteri and the symphysis pubis, the child may be felt just behind and above the symphysis, through the neck of the uterus, so that there can be no doubt that the woman is in a state of pregnancy: and of consequence, it rarely happens that much investigation of this point is requisite. And yet, now and then, where there chances to be a good deal of pain, resembling that of parturition, but arising from another cause; and where the woman, under error, has supposed herself to be pregnant; the practitioner is called to cases of *reputed* delivery, when, in reality, gestation is not begun. A gentleman once calling at my house, told me, not without earnestness, that he had under care, a case of labour, about which he was very anxious. "The mouth of the womb," said he, "is beginning to open, and I can feel the child, but the patient is somewhat weak, and labour makes but little progress." On my inquiring how long delivery had been protracted,—a few hours, was the reply; and he added, that there was no very pressing symptom. A meddlesome midwifery is bad, I rejoined, therefore it is better to wait, and not unwisely and rashly distrust the best of accoucheurs—Nature—the mother of us all. A day or two passed away, after which, he called on me again, observing, that his patient, still undelivered, was getting weaker and weaker, and that he wished me to give her a visit. On entering the apartment, I saw the woman lying in state, with nurses, accoucheur, and all the formalities attending a delivery; one small point only was wanting to complete the labour, which was, that she should be pregnant (ironically); for although the practitioner, one of the omnipotent class, had distinguished the child's head in the uterus, there was, in reality, no fœtus there. A few hours afterwards the patient died, and on examining the abdomen, we found the peritoneum full of water, but the womb, clearly unimpregnated, was no bigger than a pear; and thus, it sometimes happens, that you are called to reputed deliveries, when, in truth, the patients are not even pregnant; and you may therefore set down as one office, which, in natural labour, devolves on the accoucheur, that of deciding, in dubious cases, whether pregnancy exist or not.

In general, when you are summoned to a labour, there can be no doubt as to the commencement of the delivery. Often you are not called upon till the middle of the process; when you find the womb open, the liquor amnii discharged, and the head of the fœtus approximating the outlet, so that respecting the reality of the parturition there can be no doubt. As women, however, have occasionally *false pains* in the abdomen, sometimes of a spasmodic nature, and sometimes inflammatory, it may be that you are called to a labour supposed to have made some progress, when, in truth, it has not begun. To decide, therefore in these cases, whether the delivery is commenced or not, is a second duty which devolves upon you; and this you determine, by the following diagnostics. When the pains occur, make a careful examination of the os uteri; and if you find, after a succession of pains, that the mouth of the womb is not merely dilated, but of increasing dilatation,—with a disc, at first, as large as a shilling,—becoming, after a few efforts, as broad as a dollar, such increasing expansion is decisive proof that delivery is begun. Mere openness of the os uteri, however, proves nothing. I know, from personal observation, that the mouth of the womb may admit with facility the entrance of two fingers for a fortnight or more before delivery commences; but when there is not merely expansion, but an increasing expansion of the os uteri, the commencement of the labour may be regarded as certain. But to proceed:

Desirous to know whether delivery be, or not, begun, you must make further observations upon the membranes. If, during the pain, you feel the membranes tense, like an overcharged bladder, and relaxed during the absence of pain, so as to yield readily under the touch of the finger, it may be certainly concluded that parturition is commenced; or should the membranes be uptured, examine the presenting part, which you will find advance and retreat simultaneously with the action and inertness of the uterus, as here shown. Here then are the three principal indications, by which we are enabled to decide, in dubious cases, whether the delivery is begun;—the advance and retreat of the presenting part, the tension and relaxation of the membranes, and, above all, the increasing expansion of the mouth of the uterus.

Other indications of incipient parturition there are, less decisive, but not to be passed without notice: when delivery commences, you will find sometimes an openness of the vagina, and a considerable relaxation of its texture. You will find, too, that the patient has usually the pains described to you before, of a cutting, grinding, and sawing character, returning perhaps every ten or fifteen minutes, or perhaps every twenty. Moreover, when delivery commences, the show frequently issues from the vagina, formerly supposed to be of peculiar nature, but consisting, in reality, of mucus, mixed with a little blood. Lastly, when delivery begins, usually, a few days previously, there is that descent of the abdomen, mentioned in a preceding lecture; the abdominal tumour becoming smaller than it was before. All these, however,—the descent of the abdominal tumour, the appearance of the show, the state of the pains, and the relaxation of the vagina, are to be looked upon as presumptive, not as decisive signs. The tension and relaxation of the membranes, the retreat and advance of the presenting part, and, above all, the increasing dilatation of the os uteri; these are the sole diagnostics in which, in dubious cases, we may confide; and these diagnostics, properly consulted, will preserve you from the folly of needlessly waiting for hours together to make the discovery at last, that labour is not yet commenced, or, perhaps, after all, that the patient is not pregnant. These supererogatory services are not quite so glorious in obstetrics as in theology, though some kind friend is seldom wanting to play the recording spirit, and take care that your merits may shine conspicuously in a familiar page of his register—

"Me Capitolinus convictore usus amicoque apuero est, causâque meâ permulta rogatus
Fecit; et incolumis lætor quod vivit in urbe:
Sed tamen—"

"Poor Wilson—poor Tomson—I have a very great regard for him, he is a very clever man, certainly,—a star of the first magnitude, *but*"—every blockhead knows how to round off these periods; and so it is, each succeeding generation seems to contain the moral representatives of those which are gone before it, and, Christian or Pagan, man still remains essentially the same.

When delivery commencing, has made some little progress, you may distinctly feel the expanded os uteri, through which, as the waters gather, the aqueous cyst is bearing, and for the management of this cyst some rule is required. Now there are some practitioners, who are in the habit of bursting the membranes as soon as they can reach them, because they think that, in so doing, they accelerate the labour. While there are others, and I should be disposed to accede to their practice in preference to that of the former, who always leave the rupture of the membranes to nature, as they conceive it improper needlessly to interfere. To burst the membranes by the finger, instead of waiting for spontaneous rupture, is faulty; first, because the interference is needless and meddlesome; secondly, because this cyst of water is the instrument nature employs, in order to dilate the mouth of the uterus, the opening of which it enters like a wedge, acting on its margin by expansive pressure in the way here demonstrated. On the other hand, it is not wise, in every instance, to commit the rupture of the membranes to the natural efforts; because now and then, in the sixth or seventh month especially, the ovum tends to come away unbroken, like the egg of an ostrich;

and when this is the case, much flooding may occur, and the child will, most probably, be drowned, as it comes into the world, immersed in a bag of water, and may perish like the fœtus exhibited in this preparation. So, again, sometimes, though very rarely, the membranes are morbidly unyielding, firm as a bullock's bladder, and labour may be delayed for several hours in consequence. These are, therefore, exceptions to this general rule of leaving the rupture of the membranes to the natural powers, and the rule, therefore, which I would prescribe, and which, if adhered to, will, I conceive, in general, keep you near the just line of practice, is the following: in general, commit the rupture of the membranes to nature, and, in nineteen cases of twenty, they will yield, and the delivery will do well. If, however, you find that the os uteri is laid wide open, and that the membranes pushing down along the vagina towards the external parts, are not giving way, you may then rupture them; for, no longer of service in dilating the passages, they may retard the birth; or, should the laxity of the parts, or the capacity of the pelvis, allow of their transmission entire, floodings fatal to the mother, and destructive to the fœtus, may be the result. And here let me send you this preparation, consisting of an ovum about seven months of age, unbroken; in this delivery, as I learnt, a very dangerous flooding took place, and the fœtus, instead of growing up to manhood, like Asmodeus in the story, has, for the last twenty years, been incarcerated in this bottle. In labours generally, it is of very little importance, whether the practitioner knows, or not, what is the presentation, because, in general, it is a natural one, and notwithstanding his ignorance, the child will safely enough come away. Nevertheless, as we explained in a preceding lecture, in treating of the passage of the child through the pelvis, it may be that the child lies unfavourably for transmission, and the aids of art may be required. In cases of this kind, an accomplished and scientific accoucheur ought to be prepared to administer the necessary assistance; as, however, he can do nothing till he know the presentation, it is desirable that, in every labour, he should as early as may be, make out what is the part of the child that is lying over the centre of the pelvis, so that he may take his measures accordingly.

There are different periods of the labour at which the presentation may be ascertained; when, for example, the head is about to enter the world, as shown by the apparatus; or when the os uteri is fully expanded, and the membranes are broken, and the cranium is on the point of entering the brim of the pelvis, or when, lastly, the disc of the os uteri, about as large as a shilling, will admit two of the fingers, so that if you make your examination when the womb is quiet and the membranes are relaxed, the presenting part may be easily distinguished. Not to bewilder you, however, with discordant practices, I may observe, that in ordinary cases, it is, on the whole, the best to make the examination at the time commonly recommended; that is, when the mouth of the os uteri is laid wide open (observe the preparation), when the membranes broken, and when the liquor amnii has just been evacuated, then the head of the child, lying naked within the brim of the pelvis, within your reach too, unaltered by compression, you may the more easily recognise it.

Now, in a labour that is natural, and such as I am here considering, the mouth of the uterus being open, the membranes broken, and the liquor amnii just discharged, the vertex of the child may be known by its *roundness*, and its *hardness*, by its sutures, and its fontanels, often by the adjacent ear, and frequently by the hairy growth upon the scalp. To ascertain all this, requires some small share of experience and dexterity, but not much; for with an ordinary share of skill the practitioner may decide easily enough, whether it be the vertex or some other part that is lying over the centre of the pelvis.

In making this examination, you put the woman into different positions, according to the custom of the country where you practice. Of some countries, the accoucheurs make the examination in the recumbent posture; of some, in the sedentary; and among the plebeians in Ireland, the patient is examined on the knees and elbows. For the purposes of British midwifery, however, perhaps the ordinary obstetric position of this country is the most convenient; that, I mean, now demonstrated, in which the woman lies, like this image, on the left side, as near to the edge of the bed as may be; the bosom approaching the knees, the knees advancing towards the bosom, the shoulders forward, the loins posteriorly, the feet, if agreeable, bearing against the post of the bed, when the position being composed in this manner, the first and second fingers of the left hand, as formerly recommended, will be found the most convenient for making the examination.

If you have clearly ascertained that the presentation is the vertex, the principal point of examination in natural labour, perhaps it is better, when you are young in practice, not to disturb the mind with investigations respecting the *situation* of the different parts, unless, indeed, this be done with a view of acquiring from exercise a more complete mastery of examination; for in ordinary labours it matters little whether you are acquainted or not with the *situation* of the cranium. Every accomplished accoucheur, however, deserving to be considered as an adept in obstetrics, ought to be able by all means to determine this point at once; and when you have attended, perhaps, some hundreds of cases, and paid particular attention to this part of examination, you will find this easy enough. Many accoucheurs fail egregiously, but the fault is not in the art, but in the man; for if we except some few cases, the situation of the head may be readily made out, provided the practitioner, not a mere talker in midwifery, is really a proficient in his art. Now when you are desirous of discovering situation, make it your first endeavour to distinguish the ear, by interposing the finger between the symphysis pubis and the head of the fœtus; and there, if the accoucheur be skilful, and the condition of the labour natural, without difficulty, even in the earlier parts of labour, the ear may be felt. Again, anxious to ascertain the position of the head, examine the ear once more, taking care not to double the part upon itself, observing carefully which is the *flap* of the ear, and which is that part of the ear which is *bound down* close upon the head, for the flap of the ear lies towards the occiput, as the part which is sessile is lying towards the face. But to illustrate: when I examine the head of this model as it lies in the pelvis as at present, I find the detached portion of the ear, the flap, is lying towards the right of the pelvis; whence I infer that the occiput also is lying to the right. I further find, that the portion of the ear which is seated close upon the side of the head, is placed to the left of the pelvis; and hence I learn that the face is lying to the left. So that where you feel the ear, and take care not to displace, and falsify its indications by doubling upon itself, observing respectively those parts which are attached and disengaged, you may make out the situation of the face and occiput with facility and precision. Further, by examining the sutures and fontanels, (an observation never neglected in my own practice,) you may again determine what is the situation of the head. Feeling the sagittal suture, as in this model, you trace it to one extremity, and there discover a fontanel of small size, of triangular shape, and of three concurrent sutures, the two legs of the lambdoidal and the sagittal; well, this part I know by these characters to be the *little fontanel*, and where the little fontanel is, there is the occiput; in this demonstration, therefore, to the right of the pelvis. Then tracing the sagittal suture back upon the other extremity, you find there a larger deficiency of bone; the greater fontanel of rhomboidal shape, with conflux of four sutures, I mean the two legs of the coronal, the sagittal, and the frontal. Now by these characteristics I recognise the *larger fontanel*, seated here to the left of the pelvis. and as the larger fontanel lies near to the face of the child, therefore it is to the left of this pelvis that the face is situated; so that by examining carefully the ear, sutures, and fontanels of the head, in ordinary labours, the position may be discriminated with great exactitude. Sometimes the membranes are ruptured before the os uteri is dilated; examinations may be made in these cases as soon as the finger can be introduced. In ordinary examinations, the position of the patient requires no nice adjustment; but if you would examine with more than ordinary care, the rules of posture already prescribed must be observed. When the vertex is much swelled from compression, it may be confounded with other parts, and more especially with the nates, from which, however, with due care and dexterity, it may be discriminated readily enough by the diagnostics enumerated. Under continued pressure of the finger, the intumescent scalp is gradually dissipated when the sutures and fontanels become clearly distinguishable, or the edge of the parietal bone may be found lying on the margin of its fellow; or some times we have, in a copious growth of hair, a decisive indication of the vertex. These obscurities from intumescence, are frequent in consultation cases, but in cases originally under your care, they must be of rare occurrence, provided you adhere to the rule before enjoined, and make your examinations in the earlier part of labour, as soon as the liquor amnii has been discharged; for before effusion of the liquor, the cranium can be but little compressed.

In a natural labour, the less you interfere the better, and therefore when once the membranes are open and the position of the head is made certain, provided you find the child lying in such manner as not to require assistance, you have in fact little to do beyond merely sitting at the bed side and watching the progress of the head to the outlet. If it be a case of instruction, and you are beginning your practice, then indeed it is proper that you should examine as frequently as may be, without injuring the woman, with a view of learning to recognise the different parts of the pelvis and the head. But if the case is managed, as cases generally ought to be, merely for the comfort and safety of the woman; then the less you examine in a natural labour the better, though it is sometimes necessary, during pain, to feign an examination, lest the patient should fancy herself neglected.

As the head is making its progress through the pelvis, there is one point to which the accoucheur should attend, and that is, the keeping the bladder duly evacuated. When suffered to accumulate, the urine may injure the bladder by over distention, and in protracted labours, as I have told you already, the back part of the cervix vesicæ may become ruptured and opened into the vagina, of which accident I have now seen two conspicuous cases. In a natural labour the natural efforts are usually sufficient for the evacuation, nor should the catheter, on any account, be introduced unless the natural efforts failing, the accumulation of water clearly requires the operation, and the requisite dexterity and facility ensures its safety. When the bladder is obstructed, the less the patient drinks the better, and, within limits, the more she perspires the better. It is desirable, therefore, that a small diaphoresis should be sustained; and above all, she must not drink copiously, provided the labour be somewhat prolonged.

When under the natural efforts, with little interference on the part of the accoucheur, at length the head of the child comes down into the outlet of the pelvis; then it is that another and very important duty devolves on the accoucheur, this is, the protection of the perineum—a protection which, in some cases, is essentially necessary. If the head of the child be small, or the softer parts relaxed, or many children have preceded, the cranium emerges without difficulty or danger, but if it should so happen that the softer parts are rigid, or the head large, or the outlet of the pelvis contracted, then ordinarily the head comes through in a more gradual manner, advancing, retreating, as ease and pain reciprocate, till gaining progress with every effort, at length the fœtus emerges in the way that this instrument so well demonstrates. Ten, twenty, thirty minutes, or more, this process may occupy; and when, as in first labours, the parts are rigid, defence of the perinæum becomes very necessary, for it sometimes happens that the part is laid completely open, so that the genitals and anus form one common fissure. The method of protecting the perinæum is simply this: I speak of ordinary labour—When the fœtal cranium bears on the labia pudendi and perinæum, dilating these parts as if it would burst forth, let the left hand be laid naked upon the perinæum, so as to be ready for counter-pressure, and get a bearing on the vertex with the right. This done—as a meddlesome midwifery is always condemnable—should the softer parts, during the subsequent pains, appear to be in no danger of laceration, content yourselves with directing the patient to abstain from forcing, and suffer the head to advance; but from the higher tension, it is obvious that rupture is to be apprehended; you must then, though unwillingly, resist the bearing forth of the fœtus, supporting the perineum with the left hand and opposing the progress of the vertex with the right, in such manner, however, as not to delay the emersion longer than the safety of the perineum requires. At this time the woman ought not to urge voluntarily. If the pains are very vehement, rupture of the uterus may occur, if the birth be too long delayed.

When the head is in the world, do not lay hold of the neck and endeavour to draw down the shoulders,—for here, as ever, a meddlesome midwifery is bad. The natural efforts, if fairly tried, will in ordinary labour expel this part of the child; and it is found, that where the efforts are left, in this manner, to expel the shoulders as well as the head, the womb contracts afterwards more kindly and effectually, and the placenta becomes more safely detached. When the child's head is come into the world, therefore, remember that a prudent practitioner ought not to interfere, but must still suffer the uterus to act in its own way, when by the natural efforts the shoulders will be expelled.

It not unfrequently happens in labours, on the whole, natural—perhaps, in one out of five or six cases,—that the umbilical chord is surrounding the neck of the child, coiled round the part once only, or repeatedly, say six or seven times. When the chord surrounds the neck, in this manner, the simplest and best method of detaching it, is to put a finger, or two, into the loop, by pressure dilating it, afterwards laying the chin upon the chest, and bringing the loop over the back of the head, so as to set it at liberty. If you cannot disengage the chord in this manner, you may then open as before, and suffer the shoulders to pass the loop in the way I here show you. If, however, the chord surround the neck two or three times,—and I have heard of one case in which the coils were six, and another in which they were seven in number, the loops being many, you cannot open the chord in this manner, but a better method is to leave the chord round the neck until the body be born, when it may be disentangled with facility.

When the body is expelled, you may lay hold of the child; but be careful not to draw it away far from the genitals of the mother. In general, the umbilical chord of the human female is about two feet long, occasionally much longer; it sometimes happens, however, though rarely, that the chord is unusually short. Now, in such a case, if you were to draw the child away, you would, in fact, make a pluck at the placenta, and if the womb were disposed to become inverted, this displacement might be produced; or the womb, resisting the impulse, you might partially detach the placenta, producing perhaps a flooding, not without its dangers: so that to preclude these dangers, it is better to keep the fœtal abdomen close upon the genitals of the mother, until you find the chord is of full length. The child in the world, the next office which devolves upon you, is that of tying the umbilical funis; an operation which, perhaps, it might not always be necessary to perform. Because I believe that, in many cases, if the umbilical chord were cut through, and no ligature were applied, such is the well provided contractility of the umbilical arteries, that they would close, and dangerous hæmorrhages would be prevented; particularly if, as in a state of nature, the chord were divided by the *teeth*, as I presume it is among animals when divided by them at all. Nevertheless, as the safer course is to tie the funis, and as this practice is generally adopted, ligatures should always be applied. In tying the chord, you may make use of *two ligatures*, the first at the distance of about three or four finger-breadths from the fœtal abdomen. Close upon the abdomen, the ligature ought not to be applied; first, because a portion of intestine protruding in the way of hernia, might be included in the ligature, giving rise to strangulation; and, secondly, because, the chord being tender, you might, with the ligature cut down into the vessels, occasioning thereby a bleeding, which, as no room would remain for a second ligature, it might not be easy to repress. At the distance of two or three finger-breadths from the abdomen, therefore, the first ligature is to be put on, and the second may be applied about two inches from the first. Of the kind of ligature, it may be remarked, that a small skein of thread or silk will answer the purpose exceedingly well, consisting not of *two* threads only, for these might break or cut the chord, but of several, ten or twelve, for example. When applying, coil the ligature once round the chord, and draw it very tightly, not neglecting this caution, as the elasticity of the funis protecting the vessels, they might by lighter pressure be imperfectly closed, and might show a disposition to bleed. Having coiled the ligature once round the chord, and tied it in a single knot, apply it a second time on the same crease as before, and draw it tightly again, afterwards making a third loop still on the same crease with the preceding, drawing it tightly also, and securing now by a double knot. The first ligature applied in this manner, the second may be put once upon the chord, about two inches from the former and then, the chord being brought under view, you may divide with the scissars, not, however, ambitiously imitating certain great originals in midwifery, of whom some have amputated a finger, together with the chord, and others a portion of the male organ.

The umbilical chord divided, you cover the head with a cap, and, on turning round, you are perhaps surprised to find near you some fair nymph, who presents a woollen texture called the receiver, and to the protection of this lovely vision, of course, the guardian spirit of the child, the much expected visitant, is confided. (Laughter.) Respecting the fit moment for applying the ligature to the chord, a difference of opinion prevails: some advising us to wait till the funicular pulsation ceases, and others recommending ligature as soon as the fœtus enters the world. Not, however, to enlarge tediously upon this subject, I may remark here, that when the child is vigorously alive; breathing, crying, struggling, enjoying the full action of the respiratory and vascular system, I do not scruple to put a ligature on the funis as soon as it comes into the world. On the other hand if I find that the vital actions are very weak, whether from previous pressure on the chord, on the head, or any other part, I delay the ligature until indeed I am obliged to cut it away, in order that I may have recourse to the respiratory apparatus, and the use of the warm bath, of which I shall hereafter treat.

As soon as you have delivered the child to the attendant, you should, in every case, make an examination to ascertain whether there be another fœtus in the uterus. Repeatedly it has happened, that the accoucheur has wished the parent joy, has retired from the room, has even left the house, and yet perhaps as soon as he has crossed the threshold, a second child has made its appearance, to the no small gratification of those classical friends, to whose kind offices I was before adverting. Now in order to avoid so gross an error, you ought, in all cases, as soon as the first child has emerged from the uterus, to ascertain whether there be a second. If, as in ordinary labours, no second fœtus be in the womb, on laying the hand above the symphysis pubis, you distinguish there the uterus forming a mass of varying firmness, in bulk not exceeding much the size of the fœtal head, and when proceeding with the investigation, you examine internally at the mouth of the womb, sometimes the placenta, sometimes the membranes, may be felt—never, of course, the parts of a fœtus. But what if there be a second fœtus in the uterus? Why, in such cases, the womb examined externally, feels as large as in the end of gestation; and when the internal examination is instituted, the cyst charged with water, or the members of the child, may be distinctly felt. Blood collecting in the membranes of the fœtus, which has been expelled, sometimes simulates the watery cyst of another child; but the issue of clots in place of water, prevents deception here. Water, air, adeps, or a diseased growth of the viscera, of the ovaries especially, may produce abdominal enlargement, confounded by the unskilful with the intumescence from a second child; but the scientific and able accoucheur may, I conceive, always distinguish by grasping the contracted womb externally, or examining the mouth and neck within. Satisfied that there is no other child in the uterus, you may then very carefully wrap up the genitals in well-aired napkins afterwards, bracing the abdomen with a broad bandage applied over the abdomen externally to the dress of the patient, with that degree of tension which may yield a sense of grateful support. Mr. Gaitskell, of Rotherhithe, has contrived a bandage excellently well adapted for this purpose. The bandage may be followed by a cordial composed of one table spoonful of brandy, and three of water, with as much sugar and nutmeg as may agreeably flatter the palate of the patient.

These, then, are the duties, simple and few, which devolve on the accoucheur in ordinary labours. Briefly I shall recapitulate them:—Rarely is it necessary to ascertain whether the woman be in a state of pregnancy; rarely is it requisite to examine whether the delivery be or not begun. With the rupturing of the membranes, the less you interfere the better; they are to be broken solely when preternaturally unyielding, or where there is a disposition in the whole ovum to come away at once. In every instance the scientific accoucheur should make out the presentation. In every delivery it is, indeed, desirable that the situation of the child be discovered, yet this is by no means peremptorily necessary. The best time for examination is on the discharge of the liquor amnii; when the labour is found to be natural, the less we interfere the better. When the head is at the outlet, the perinæum must be protected. When the head is in the world, ascertain whether the chord is on the neck, disengaging it if necessary. When the head of the child is born, in your general practice, leave the expulsion of the shoulders to the natural efforts. When the fœtus is completely in the world, keep it as near to the genital parts of the mother as may be. If the child be vigorously alive, breathing, crying, or struggling, tie the chord soon after birth; but when it is languid, perhaps, wait till the funicular pulsation ceases. Apply two ligatures, one at the distance of three fingers breadth from the abdomen of the child, and the other at a little distance from the former. The ligature in connexion with the child's abdomen, should be applied very tightly, so as to make it more secure against bleeding after the chord is cut through. Cover the head with a cap, deliver the child to the attendants, to be washed and dressed by the nurse, examining the end of the chord, so as to satisfy yourselves that it is secure. Cover the genitals, administer some cordial, ascertain that no other child remains in the uterus—these are your duties.

You will sometimes find that children are *still-born*, as it is called, that is, although they are *not dead*, they don't cry, or manifest other indications of life, and this usually from one of two causes; first, a pressure of the umbilical chord, and secondly, and more frequently, and more dangerously, from compression of the head, contusing the brain, and perhaps producing a fatal apoplexy.

Of the various practices recommended for the resuscitation of still-born children, I may observe, there are two on which I myself place a principal reliance, and which I would recommend you to urge with diligence, not however excluding subordinate remedies, and these two remedies are the artificial respiration and the warm bath. Le Gallois, a distinguished French physiologist, removing the head of the rabbit, secured the vessels of the neck, the animal, after this operation, lying to all appearance dead; but when, after having prepared the trunk in this way, he resorted to the artificial respiration; in a few minutes the heart began to act and the blood to circulate, and throughout the whole muscular system the irritability was renewed; and thus, by means of artificial respiration, though the trunk was decapitated, he could keep it in a state of active vitality for one, two, or three hours; nor can stronger proof be adduced of the efficacy of pulmonary inflation, in renewing and supporting the action of the heart and arteries. In performing artificial respiration on new-born children, I have frequently observed, that while the respiration was continued, the chord pulsated; ceasing to beat in a few seconds, when the operation was suspended, and this repeatedly. These facts admitted, there can, I presume, be no doubt, that when the fœtus is still-born, the artificial respiration should be diligently tried; indeed, if this and the warm-bath fail us, I know of no other resuscitants on which we can confidently rely. In the fœtus still-born, you cannot execute the artificial respiration by pressing the front of the chest upon the spine, and then suffering it to recoil, the way sometimes essayed in the adults. In one case, for fifteen or twenty minutes together, I diligently operated in this manner, without producing resuscitation; and on examining the child, next day I found that scarcely a particle of air had entered the lungs. Neither can you effectually inflate the lungs, so as to execute the artificial respiration well, by blowing the air into the mouth, not even if you previously open the *rima glottidis* by the insertion of the finger, and close the œsophagus by pressing the larynx upon the œsophagus. The only mode of performing this operation effectually is by means of this small instrument, the *tracheal pipe*, which I think every accoucheur should carry along with him to a labour. The tracheal pipe is a little tube of silver, designed to pass into the trachea, its end closed like a catheter, with a long, broad fissure on either side to give free vent to air and mucus. The closed extremity and lateral openings I prefer, as there is less risk of injuring the delicate membrane of the trachea, if a terminal aperture do not exist. In introducing this instrument there is some difficulty at first, if you do not manœuvre rightly; yet every moment is of the greatest importance, for while you are blundering the child is dying. Now not to detain you needlessly, I may be allowed to observe, that my own method of operating is the following:—I pass the fore-finger of my left hand down upon the root of the tongue and into the rima glottidis, and then using the tube with the right hand, I slide it, as here demonstrated, along the surface of the finger, used as a director, till reaching the rima I insert the tube at the moment when the finger is withdrawn from it, afterwards feeling on the front of the neck whether the instrument is lying in the trachea or the œsophagus. This done, you may take the child into your hands, and from your own lungs you may inflate the lungs of the fœtus, emptying them afterwards by means of double pressure of the hand, on the thorax I mean, and the abdomen, the latter pressure being necessary in order to urge upwards the diaphragm. Operating in this manner, you may execute the artificial respiration with the best success. Five-and-twenty, or thirty, respirations there ought to be in a minute, the new-born child breathing faster than an adult. You may ask me, perhaps, whether it would not be better to use *bellows*? Make the experiment, and you will not repeat the question. When you have performed the artificial respiration for a few minutes, you make your observations on the child. Feel the chord, and you will sometimes have the satisfaction to find it pulsate. The best point for examination is at the very root of the funis, close to the abdomen. You sometimes feel the pulsation there; when at the distance of an inch from the abdomen it cannot be perceived, the arteries being so contracted that they do not admit the entrance of the blood. Examine the thorax, feel the heart, and you may sometimes, through the ribs, obscurely perceive its beating; observe the face, perhaps you find the cheeks reddening — the countenance forming—the lips quivering. When these marks of returning life are observed, pause for a little, and frequently the child will be observed to make a spontaneous effort of respiration; a deep sigh is the first breath it draws; in twenty or thirty seconds it breathes again. Now if on suspending the artificial respiration the heart continue to beat—the chord to pulsate—and the respirations to increase in frequency — further aid from the tube will not be required; but should the pulsation cease in the chord, and the sighs be heard no longer, then your operations must be resumed; and thus repeatedly, as the case requires; at one time you try the natural powers of the child, at another you support the respiration by art. There is yet another practice proper in these cases, which is the use of the warm bath. Procure a capacious vessel to be in readiness, always, when you expect a still-born child; provide also a kettle filled with hot water, and an ewer with cold; mix the waters and bring them to the temperature of 97° Fahrenheit; or perhaps higher, take care that the water is not so hot as to scald the skin. With your own hand you may judge of the temperature, particularly if you have been in the habit of using it thermometrically. Well, then, into this warm bath immerse the child, the face being kept above the water; and occasionally, by this warm bath some little respiration has been restored, even when the artificial respiration has failed; I conceive this, therefore, to be a very valuable remedy. The object of the bath is to excite the system, and especially to procure the circulation of the blood. This bath, however, requires using with some science. Sir Anthony Carlisle, the obstetric *eulogist*, has found, that if he plunge a hedge-hog into water, of the temperature of thirty-eight or forty degrees of Fahrenheit's thermometer, he may keep it submersed for thirty minutes, and, on removal, the animal may survive; but if he submerse it in water of ninety-four degrees Fahrenheit, for eight minutes, it dies. So that the animal seems to drown much faster in warm water, than in cold. Now granting this to be correct, and Sir Anthony is supported by a previous and analogous experiment performed upon the kitten by Dr. Haighton, which, as he ascertained, will drown sooner in warm than in cold water; this principle must be important in managing the bath for the child. When respiration and circulation are proceeding, the heat by exciting action, tends to support the vital principle; but if neither circulation nor respiration proceed in the bath, the heat tends to exhaust and destroy. And the practical inference I would draw from this, is very important: if you find, on immersing a child in a warm bath, that it neither breathes nor circulates, you ought not to keep it there, for, in so doing, you would destroy; you may leave it in for half a minute, and then take it out and try the artificial respiration again; but if you find it is improving in the warm water, you may let it remain in the bath for five, ten, or fifteen minutes, or more or less. If deemed proper, it would be easy to execute artificial respiration, while the child was in the bath.

Other subordinate remedies there are, which are not to be forgotten. Errhines you may put into the nose—snuff, for example; or you may rub the thorax, strike the nates, or introduce a little brandy into the stomach. For this purpose, put your tracheal pipe into the œsophagus, and, taking about a tea-spoonful of brandy into the mouth, impel it into the child's stomach through the œsophagus. Brandy given by the mouth, in the usual manner, may get into the trachea, and produce inconvenience; wash the pipe before you insert it into the trachea. Never hastily despair of the means of resuscitation. Many a fœtus is laid aside as dead which, by a diligent use of resuscitants, might have been saved. A woman, run over by a stage, was carried into St. Thomas's Hospital, and died in a few minutes after admission. This woman was in the end of pregnancy. By my friend, Mr. Green, I was requested to assist in the Cæsarean operation. In thirteen minutes from the last respiration of the mother, the child was taken out. In fifteen minutes from the last respiration of the mother, I began the artificial respiration. During fifteen minutes longer I continued it, ultimately resuscitating the child completely, and had due care been taken it would probably have been living still. Mr. Tompkins, of Yeovil, a gentleman formerly of this class, very accurate in his observations, used resuscitants for an hour and five minutes by the watch, before obvious signs of life appeared, the child recovering, however, at last, and living, I believe, for some time afterwards.

I send you round these preparations, with a view of showing the rima glottidis, the pharynx, and, generally, the formation of those parts into which you are to introduce the tracheal pipe, in order to inflate the lungs. One is a preparation from the adult subject, and the other from a young child.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE XV.

On Chlorine and its Combinations; Fluorine and Hydrogen.

GENTLEMEN,—At the conclusion of the last lecture, I informed you that there were some substances which, when immersed in chlorine, burned very dimly, and that there were others which burn in it with great brilliancy; and to day I shall show you some examples of this kind. In making these experiments, however, I shall cover the vessel in which the combustion is effected, in order to prevent the gas from being mixed with the atmosphere of the apartment. Many bodies become spontaneously ignited by chlorine, in which cases, binary compounds result, some of which are possessed of acid properties, and others not, which are called chlorides, as the compounds with oxygen, which are not acid, are called oxides.

Now, here is some copper leaf which I shall introduce into a jar of chlorine; you see that the copper leaf burns spontaneously with considerable energy, in consequence of the great attraction which exists between them, and a chloride of copper is produced. In the last lecture, I adverted to the circumstance of water taking up chlorine, and therefore I said that it could not be preserved in a vessel containing water, for the fact is, that the water takes up twice its volume of the gas, and acquires an astringent taste, and has the power of destroying vegetable colours; it is therefore used extensively in bleaching; not that the pure gas is used for bleaching, but some combinations of it with other materials, which will be afterwards pointed out.

Besides this aqueous solution of chlorine, there exists a crystalline compound of chlorine and water, from which it would appear, that about twenty-six or twenty-seven parts of chlorine are combined with seventy-three or four or five parts of water; or, in other words, that thirty-six parts of chlorine are combined with ninety parts of water. This compound is to be produced by pouring a little water into the chlorine, and you have a crystallized hydrate of chlorine, a combination of chlorine and water, when exposed to cold; a temperature of 32° is sufficient;

but it suffers no change from exposure to the greatest cold, when perfectly dry. Now, in examining this substance, and subjecting it to heat, it was found, that under pressure, the chlorine assumed a liquid state ; so that, under a pressure of about four atmospheres, chlorine, which is usually esteemed a permanent elastic body, becomes liquid, from being submitted to such pressure ; but in the present state of our knowledge, we are obliged to consider it as a simple elementary body. Its specific gravity is in comparison with hydrogen, as 33.5 to 1 ; and a hundred cubic inches weigh 75.375 grains.

Now chlorine combines with oxygen, and forms with it at least three compounds, but none of these are of any particular importance. The first is the *oxide* of chlorine, which has an odour less irritating and disagreeable than that of chlorine ; it dissolves in water, forming a light yellow solution, and it must therefore be collected over mercury. Another combination of oxygen forms the *euchloride*, which is, as you see, of a bright yellow colour, and is very explosive. It even explodes at the ordinary temperature of the hand, therefore requires to be managed with great caution. The result of this explosion is found to be a mixture of the chlorine and oxygen, in the proportion of two volumes of the latter to one of the former. There is a curious fact in relation to this compound, which is, that although there is an increase of volume resulting from the union, there is the appearance of heat and light. There is, as you here see, a flash of light, a loss of colour, and an increase of volume. It is a curious fact, that it does not support combustion, or rather that the metals do not spontaneously burn in it. Suppose we introduce into euchlorine a piece of copper leaf, it does not burn, you see, but the moment we heat the mixture, and so decompose it, then the copper leaf burns exactly as it would do in a mixture of chlorine and oxygen. The chlorine is the gas which sets the copper in combustion, and the oxygen supports the combustion. A fact which shows the error of the French doctrine, which taught that bodies would not burn without the presence of oxygen. The other two compounds of oxygen with chlorine are acids, and I only advert to them just to mention their composition, as they will be more particularly described by and by, when the compounds which they form will come under consideration. *Chloric acid* is a compound of oxygen and chlorine, in which 36 parts of chlorine are combined with 40 of oxygen, giving 76 chloric acid, or about five proportionals of oxygen to one of chlorine. It may be obtained by passing chlorine through a mix-of oxide of silver and water; but it is not at all an interesting substance in its insulated state. Here is a salt containing this acid, the chlorate, or the oxymuriate of potash, as it was formerly called. There is another salt, to which the term perchlorate of potash or oxychlorate of potash has been given, and from which a *perchloric acid* has been obtained. It is an acid which does not exist independent of water or a base, and has been but imperfectly examined ; it is said to consist of 36 chlorine and 56 oxygen, from 92 perchloric acid.

Iodine is the next simple body in the list. It was discovered, in 1812, by a M. Courtois, a soap-boiler of Paris. There are many substances from which it may be obtained, but it is generally procured from *kelp*, which is made by burning a great number of sea weeds. We reduce the kelp to powder, and pour upon it cold water, which takes up the more soluble salts which contain no iodine, we then set the solution aside to crystallize ; we obtain by this process common salt principally, but also a few others. The mother liquor is then evaporated to dryness, and saturated with sulphuric acid, which generally requires to be about half the weight of the mass. You then apply a gentle heat to the mixture in a retort, and fumes of a violet colour pass over into the receiver, which being cooled, furnish small crystals of a greyish metallic lustre. The smell of iodine, is somewhat like that of chlorine ; like chlorine, it acts upon and destroys vegetable colours ; it is a very volatile substance, so much so, that at a temperature of 120°, it begins to rise into vapour, which is of a beautiful violet colour, from which colour its name is derived. Its specific gravity, in the crystalline state, is about 4½ water, being regarded as 1 ; but in the state of vapour, 100 cubic inches, weigh 264.75 grains, or, in proportion to air, as 8.775 ; at a temperature of 300° it enters into fusion. It dissolves with great difficulty in water ; one part requiring about 7000 of water for its solution ; the colour of the solution is yellow, and the taste peculiar and disagreeable. It dissolves readily in alcohol and æther, and they are, therefore, chosen for medical purposes. What is called a *tincture of iodine*, is a solution of about forty-eight grains of the iodine in two ounces of spirits of wine ; ten or twenty drops are taken two or three times in the day. It has gained some celebrity in cases of enlargement of the thyroid gland, which is a common affection in certain mountainous countries, especially in the neighbourhood of the Alps, where it is called *goitre*. If given in too large a dose, it stimulates ; producing cough, restlessness, and so on, and must therefore be used with caution. One curious fact, in connexion with the history of iodine, is, that it exists in the ashes obtained by burning sponge, and you know that that substance has been long celebrated for the cure of goitres; this is, no doubt, owing to the presence of iodine. It is found more in the ashes of the *fucus saccharinus*, than in any other of the fuci. There is a test of iodine, which I may just mention to you whilst on this subject, namely, starch. If you make a thick solution of starch in water, and add iodine, the two substances combine and form a beautiful new blue compound, which is very characteristic of the presence of iodine.

The compounds which iodine form with oxygen and chlorine, are not of very particular importance. It forms with oxygen the *iodic acid*, and with chlorine the *chloriodic acid*. The composition of iodic acid is 125 parts by weight of iodine, and 40 parts by weight of oxygen. The chloriodic acid is composed of 125 parts by weight of iodine, and 36 of chlorine, forming 161 chloriodic acid. Some few of the iodates are important, and these will be pointed out to you by-and-by, as they have been introduced into medicine.

Fluorine, the fourth of the substances belonging to this class, I shall now pass over. Its nature will be described, when we consider the properties of the fluor spar. We know but very little of its nature, although it is very active in its combinations. We have as yet no substances capable of retaining it; we shall, therefore, pass it over here.

Simple Inflammable Substances.

We now proceed to the second class of substances, or such as are attracted by the negative electric pole, and are, therefore, *electro-positive substances*. These are, excluding the metals, six in number; namely,

Hydrogen
Nitrogen
Sulphur
Phosphorus
Carbon
Boron

to which may be, perhaps, added sileneum. The metals constitute a very important class of bodies, and these we must take distinctly.

These bodies have been called simple *acidifiable* bodies; because, when combined with one or the other of the bodies last mentioned, they form acids, but this term is objectionable. Most of these are inflammable; two of these are gaseous, namely, hydrogen and nitrogen, the last of which is placed for convenience in the present list, and sulphur and phosphorus are, as you well know, very inflammable.

Now first of *hydrogen*, a term derived from the existence of the gas in water, is copiously obtained with great facility by many simple processes, but they almost all hang upon the decomposition of water, and this decomposition may be effected in a great variety of ways. It may be obtained by acting upon dilute sulphuric acid with iron or zinc, and as hydrogen is not absorbed by water, it may be collected over water, as you see here. Its distinguishing peculiarity is its inflammability; it burns with a pale blue flame, scarcely visible in daylight, and in consequence of this property, it was for a long time called inflammable air. When obtained from the zinc it is not quite pure, but contains a little zinc.

It is necessary that we should ascertain its specific gravity with precision; because being the lightest body, we take it as unity. From a number of experiments which have been made upon it, it appears that the specific weight of hydrogen varies a great deal; but if we take the most correct results, we shall conclude that 100 cubic inches do not weigh more than $2\frac{118}{1000}$ grains, so that in proportion to atmospheric air, it is as 0.702. Its remarkable levity is, therefore, one of its striking peculiarities, so that if I were to place a jar of hydrogen in the air with its mouth open, it would all escape, from its being so much lighter than the air. Here is a jar of hydrogen, to which I shall attach a small jet, and light it as it escapes; you see that it burns very faintly, but if I were to mix it with about twice its weight of atmospheric air or oxygen, it would explode with considerable violence. I shall just show you the fact now, but I shall more fully advert to it in the next lecture. The explosion produced is very loud, and you see that water is formed. What is called the electrical pistol, or the inflammable air pistol, is formed upon this principle.

Now although hydrogen is itself inflammable, it extinguishes burning bodies very readily; so that hydrogen, in the common acceptation of the term, is not a supporter of combustion. There are two or three experiments which may be made with hydrogen, depending upon its inflammability and low specific gravity; the first is the production of tones in tubes. Here is a current of hydrogen burning at the aperture of this fine pipe; if I hold a glass tube over it, you will hear a peculiar grumbling sound produced, caused by the rapid passage of the air through the tube. By holding tubes of different lengths over flames of hydrogen, you would have different tones produced; but if we may regard that as a specimen which we have just heard, I imagine that you are not very anxious to have any more of it.

Here is an instrument for producing instantaneous heat, on which I set a great value, since it was made under the immediate direction of Volta; it is called Volta's air lamp. I have occasionally had this instrument in good use for three or four years together; the electrophorus nerve requiring to be renewed in that time; but they have recently got into some disrepute, from having been kept in damp rooms.

The last application of hydrogen I shall have to touch upon, is the formation of water balances, a very curious but useless sort of thing. In the next lecture we shall proceed to consider that most important combination of hydrogen in the composition of water.

Lecture XVI.

On Hydrogen, and the Composition of Water, and the Atomic Theory.

Gentlemen,—I have first to show you, that when hydrogen and oxygen are made to combine in certain proportions, water is formed. If I burn hydrogen under a bell glass, to which the air has free access, the hydrogen will unite with the oxygen of the air, and pure water will be formed, and this union is found to take place in the proportion of two volumes of hydrogen to one volume of oxygen. Mr. Cavendish, by whom hydrogen was first duly examined, has given you something like a connected account of his labours, in investigating in what quantity oxygen entered into combination with hydrogen to form water, and he arrived very nearly at a correct conclusion. He found that they combined in the proportion of two columns of hydrogen to one column of oxygen; and in as much as the specific gravity of hydrogen is to oxygen as 1 to 16, speaking in round numbers, eight parts of oxygen with one of hydrogen will form nine of water, or, more correctly speaking, that two columns of oxygen, represented by 7.5, with one of hydrogen, form 8.5, the equivalent of water, as you see in this table (pointing to one, which was exhibited to the class); but I hope you will not make any confusion between the columns and weights. So that 100 parts of water will consist of 88.24 oxygen, and 11.76 hydrogen. Now we may again illustrate the formation of water by a synthetical experiment. Here is a vessel sufficiently strong to resist the explosion of the two gases in the proportions before mentioned, we shall inflame them by the electric spark, and we shall find that the result is pure water, equal in weight, as Mr. Cavendish supposed, to the weight of the gases inflamed. Here is a curious chemical relic, in as much as it is the instrument employed by Mr. Cavendish in his experiments; it is a brass cylinder, in which the ignited hydrogen unites with the oxygen of the air, and thus forms water. A great many experiments have been made as to the effect of the electric spark upon mixture of hydrogen and oxygen; but it is not worth while to enlarge upon the subject here, as it belongs to a part of chemistry which we could not expound, if these lectures were extended to fifteen times their prescribed limits. There is another curious fact with regard to oxygen and hydrogen, in as much as under a certain amount of pressure they explode, and, uniting, form water, as was shown by Biot. Now it is necessary, in order to establish any chemical fact of importance, that the experiments should be conducted by way of analysis, and synthesis. In the case before us, we have procured water by a mixture of the two gases of hydrogen and oxygen; let us now see if we can obtain oxygen and hydrogen in similar proportion from water by way of analysis. Lavoisier made a grand experiment upon this subject by means of a very simple apparatus; he took a tube, made of porcelain, and passed it through a proper furnace, so that it could be made red hot, and into this tube he put 100 grains of pure iron wire; with one end of this tube he connected a small glass retort, containing a given quantity of water, and to the other extremity he connected a worm-pipe, by which any fluid that passed over might be condensed. By applying a moderate heat to the retort, he made the water to ascend into the porcelain tube, when it was immediately decomposed by the great heat, and he found by making experiments in this way, that nothing but pure hydrogen issued from the other end of the apparatus; the fact being, that the moment the water came into contact with the red hot iron wire, the hydrogen was given off, and the oxygen united to the metal. He next found, that by putting 100 grains of water into the retort, and treating it in the same way, that the iron in the tube had increased 88 grains by weight, and that the hydrogen liberated, amounted to 11 grains and a fraction, which we shall not dwell upon; but this was a beautiful experiment, and seems to establish the fact, that water is composed of hydrogen and oxygen in the proportions already stated. This too, is a very ready mode of obtaining hydrogen; and when it was supposed that air balloons might be made useful for military purposes, a large establishment was formed at Veidun, in France, for obtaining hydrogen for that purpose. (This experiment was shown.)

Now there are other modes of decomposing water at common temperature, as by potassium; you see that the moment it touches the water an explosion takes place, the oxygen of the water combining with the potassium, whilst the hydrogen is set at liberty. The hydrogen thus evolved was collected in a large glass tube and examined. Now we find by this experiment, that the metal has disappeared entirely, and that an oxide has been produced forcing common potash, and if we examine the gas liberated, it will be found to be pure hydrogen. With regard to the general result of this experiment, we find that the quantity of hydrogen liberated is equivalent, as far as its relative proportion in the composition of the water is concerned, to the quantity of the oxygen transmitted to the potassium.—Among the first experiments with the Voltaic pile on the decomposition of water, it was found, that gases were liberated at each end of the pile; that hydrogen was evolved at the negative wire and oxygen at the positive. The same experiment had been previously made, but in a very imperfect manner, by common electricity. Now it is only necessary that I should just advert to the general results of these experiments, and in short, I may say, that they all prove that oxygen and hydrogen form water, and that the union of the two gases takes place in the proportion of the two volumes of the one to one volume of the other. The electrical decomposition of water has given rise to a theory respecting its formation different from the one we have adopted; it has been said, that water is an electrical body, and that oxygen is a combination of water and positive electricity, and hydrogen a combination of water and negative electricity; but if one enter into speculations of this kind in chemistry there would be no end to them, and we ought rather to adopt a theory more consistent with the facts before us. It has been supposed that oxygen and hydrogen again give off their electricity, and that water is the result.

With regard to water itself, it is a fluid too well known to require any particular description; it is found in different states of purity, according to the nature of the soil through which it passes, or the nature of the vessels in which it is contained; but it may be remarked, that all common water is impure, and therefore unfit for chemical purposes. River and spring water will contain all the soluble substances contained in the earth, and rain water is also contaminated with common air, and all those substances taken up by it in passing through the atmosphere; so that the chemist is obliged to distil it to obtain it pure, and even then the process must be conducted with great caution.

We are in the habit of comparing the specific gravity of different substances with water, and therefore it is a matter of some importance to determine accurately the absolute weight of a given bulk of water. It has been ascertained that, at a temperature of 40° of Fahrenheit, which you will recollect is the maximum density of water, a cubic foot weighs 999 ounces and $\frac{900}{1000}$, which is so near 1000 ounces, that in general, perhaps, we may say that, in round numbers, it will weigh a 1000 ounces. The cubic inch will weigh 252 grains and $\frac{953}{1000}$ of a grain. Of course as we increase the temperature of the water we diminish the weight of the same volume, but the numbers I have mentioned are taken at its maximum of density. At a temperature of 32°, under common circumstances, it assumes a solid form, which is attended with an increase of bulk, and therefore it becomes specifically lighter. At 212° it boils, and, under common atmospheric pressure, is then converted into steam, a hundred cubic inches of which weigh only 19.062 grains, being to air as 1 to 6.318, and is therefore, as you see, very much lighter. Compared to hydrogen, the weight of an equal bulk is as 9 to 1; the same bulk of steam being nine times heavier than hydrogen gas. About 1800, I believe, is the bulk of steam to water; one bulk of water being equal to eighteen hundred of the same bulk of steam, and we are now speaking of it at common atmospheric pressure.

It has been doubted whether water is compressible, but it would appear from some experiments of Mr. Perkins, that, under very great pressure, it does undergo a slight diminution in bulk. It enters into a great variety of combinations, and is indeed one of the most important substances with which nature presents us. It unites chemically with some bodies, constituting their water of crystallization, and contributing to their regular form and transparency; and it forms such an intimate union with some bodies, as with lime and potash, as to be separated from them with great difficulty, even at a red heat, especially from potash, in which cases it may be considered as one of the constituents of these bodies, as it exists in them in a definite proportion. Independent of other substances, water always contains air, and it is very difficult to separate the air entirely from it: you may do so to a great extent by boiling it for a long time, or by placing the water under the exhausted reservoir of an air pump, but the moment it is exposed to the atmosphere it again takes up, a property which is of great importance in nature, as it affects the lives of aqueous animals and plants.

Having stated to you the composition of water, you are in posession of the main data on which we shall found our theory of *chemical equivalents*, or the *atomic theory*, as it has been called, which I shall now briefly describe to you. In the first place we refer the weights of all bodies to hydrogen, because it is the lightest known body; and if we say that hydrogen is 1. we represent the weights of all other bodies by multiples of that number; and it has been found by Dr. Prout that the weights of bodies so nearly approach to whole numbers, that we might, without much danger, adopt such modes of numeration. For example, *hydrogen* we agree to call *unity*, and we search for the number to represent *oxygen;* to determine that number, we take water, and we find that one part, by weight of hydrogen, is combined with eight parts by weight, or atoms, of oxygen, and therefore we say that 1. will represent hydrogen, and 8. oxygen; and that, consequently, 9. will represent water. So that, carrying this in our head, when water is put before us, we say that nine parts of water is constituted of eight parts oxygen, and one part or atom of hydrogen; and at present we will not trouble ourselves with volumes. Now, the next substance we meet with is *chlorine*, so, in order to arrive at a knowledge of the number which may represent chlorine, we prove exactly in the same way as we did with oxygen. We have to determine what is the smallest quantity of chlorine that will combine with one part by weight of hydrogen, and we find that it is 36.; accordingly, we say that 36. is the equivalent or representative number of chlorine, and this statement is founded upon the analysis of muriatic acid, in which one volume of chlorine combines with one of hydrogen, but the weight of the chlorine is 36 times that of the hydrogen: we say, therefore, that muriatic acid is represented by the number 37., and that it is compound of 36 parts by weight of chlorine, and one part by weight of hydrogen. *Iodine*, which is the next of the supporters of combination on one list, is found to enter into combination with hydrogen, in the proportion of 125 to one, to form the hydriodic acid. We say, therefore, 125 is the equivalent or representative number of iodine.

There it is laid down as a remarkable fact that when bodies unite in more than one proportion, that the second and third compounds are always simple multiples of the first. You have been already told that oxygen and chlorine unite in definite proportions, and they do so to form three distinct compounds; and here is a table in which these combinations are put down. You will bear in mind that water is composed of one proportional of oxygen and one proportional of hydrogen, and that the relative weight of these proportionals or atoms are to each other as 8 to 1. Recollecting then this fact, you see here that the first combination of oxygen with chlorine forms the oxide of chlorine, which is represented in the table, as composed of one proportional of chlorine 36, and four proportionals of oxygen 32, and that the equivalent number of the oxide is therefore 68; the four proportionals of oxygen being exactly equal in total amount to what may be shown to be produced by the simple multiplication of the first proportional; 4 times 8, yielding 32. In the next combination, the oxygen unites with the chlorine in the proportion of 5 to 1; the quantity of oxygen will be therefore represented by 40, and the chlorine 36, giving 76 as the representative of chloric acid. In the perchloric acid seven proportionals of oxygen are united to one of chlorine, and the numbers are oxygen 56, chlorine 36, giving 92 as the equivalent numbers of the acid. And you will find in any series of compounds that the proportions of the elements of numbers are retained; the compound being some simple multiplier of the first, which is a considerable advantage to the chemist, independent of others, which this method of calculating holds out. I might go on to offer you some further illustrations of this subject; but I believe I shall leave it at present, only urging you to mark the difference between volumes and weights, as we shall have continually to revert to these terms.

We may now then form some idea of what happens when hydrogen and chlorine are brought into contact with each other; and I shall first show you that chlorine supports the combustion of hydrogen; you will see that in point of fact the two gases combine with each other, and if carried into the rays of the sun an explosion would take place, and the result would be an equal volume of muriatic acid gas. I shall now burn together a volume of hydrogen and a volume of chlorine, in the same apparatus as I before burned oxygen and hydrogen, and you will find that they will explode, and that a quantity of muriatic acid will be formed equal in bulk to the bulk of the gases employed; and that an acid gas is thus formed, you may readily see by its action upon the vegetable colour contained in the water beneath.

We must defer the further examination of muriatic acid, and the other combinations of hydrogen, until the next lecture.

FOREIGN DEPARTMENT.

The following account of the electric organs is taken from Dr. How's Translation of the first volume of Rudolphi's Physiology. Although we are sorry to find that the translation is not altogether free from inaccuracies, still it contains a mass of information interesting to all classes of medical men, and we sincerely hope the translator, ere long, will favour us with the continuation of the work:—

"The *electric organs*, or, as they were formerly denominated, the *corpora falcata*, of the torpedo marmorata and ocellata, are very easily known. On each side, near the scull and gill, there is placed a body, which consists of many hundred prisms of from three to six sides, which stand perpendicularly to, and close on, each other, extended from the skin below to the skin above, and bound firmly to it by cellular membrane, which are as so many voltaic columns. If we examine these in a specimen which is fresh, or preserved in spirit of wine, we observe each prism to consist of a tube surrounded with nerves and vessels, with their membranous walls, in which are found a great number (according to Hunter, 150) of thin plates or partitions difficult to separate, and arranged in horizontal layers on one another, with an albuminous fluid contained between each. When the columns are, on the contrary, quickly dried, the plates are not only seen more distinctly, but may be easily separated, and do not appear to form any tubes, while the surrounding cellular membrane alone preserves this appearance. Todd considers the tubes as quite cylindrical, and that they have the appearance of corners merely as the consequence of the appending cellular membrane; but this is evidently wrong. Girardi describes them also as six-cornered generally, and now and then five and four-cornered. Three large nerves are given off on both sides to these organs, dividing equally into parts, so that they penetrate the tubes horizontally, and are entwined around them in such a manner that each plate seems to receive its nerves as its vessels. In many of the prisms, connexions between their nerves may also be pointed out. All the three principal branches, before they reach the electric organs, give off smaller branches to the gills; the first of these is certainly to be considered as the fifth pair of nerves (*par quintum s. divisum*), the second and third as the tenth (*par vagum*), as is done by Cuvier (Leçons, T. V., p. 268.), except that he considers three branches as given off from the vagus to the organ, without taking observation of their earlier connexion.

If the electric organs of the torpedo cannot be denied to be batteries of voltaic columns, then those of the gymnotus electricus, on the contrary, must be considered as a very numerously compounded trough. On each side there is a larger superior organ, and an inferior smaller one. Each commences immediately behind the head, under the large muscles of the back, where it is obtusely round, and runs along towards the point of the tail; towards the spine it is plane, or somewhat concave; externally it is convex; superiorly it runs into a sharp border; inferiorly it diminishes, and is strongest in the middle. It consists of horizontal membranes, situated about the third part of a line from each other, and extending along the whole length; between these we find perpendicular laminæ arranged from within outwards, bound firmly to them, and dividing them into right angles: they are very closely arranged on one another, and contain water in the small cavities which are formed by this arrangement of the laminæ. Under this larger organ there lies a smaller one exactly similar to it, which is still more minutely divided, and which, where it borders on the other, is only separated from it by a horizontal wall, while at the sides of the fish, on the contrary, the organs diverge in order to afford space for the interposition of muscles. In the specimen which I have before me, the intercostals on each side, 224 in number, pass off at the inside of the organs; they are then immediately divided, and pass over all parts of them, so that their branches spread from before posteriorly, and inosculate with each other; but the fine ends of the intercostal nerves, under the smaller organ, pass to the skin, and here they form fine and uninterrupted net-works, which cover the skin through its whole extent. A large twig, which is given off from the third branch of the fifth pair, and is increased by a smaller one from the par vagum, passes posteriorly near to, and parallel with, the spine, from before quite down to the tail, passing directly over the intercostals (crossing them at right angles), and no where uniting with them, but distributing its twigs to the muscles of the back. This is the nerve which Hunter considered as the par vagum, and which Fahlberg improperly denominated the par electricum.

"The organs of the torpedo and gymnotus electricus agree in this, that they exhibit tubes or foramina, with which their laminæ form right angles, and the intermediate spaces of which are filled with a fluid. They differ, however, in respect to the breadth and length of their organs, which, in the gymnotus electricus, are likewise firmly bound together at every part, while the prisms of the torpedo, and their transverse laminæ, have a loose connexion; the supply of nerves is very great in both, but in the torpedo it is proportionably greater."

SWIM-BLADDER IN FISHES.

The communication of the swim-bladder in certain fishes with the internal ear, tends to confirm, instead of contradicting, the character assigned to that organ as an imitation or rudiment of the lungs of the superior animals. Where the eustachian tube exists, it forms in the same manner a communication between the cavity of the ear and the respiratory organs. On the other hand, the lungs in the proteus form merely two membranous sacs without any cells, whilst in certain serpents the structure is still further simplified by the exclusive development of one lung, the other remaining in a rudimentary state. In the proteus, again, the closed state of the swim-bladder in other fishes is very nearly imitated, the bronchi into which the trachea divides before it enters the lungs being so small that the action of alcohol is sufficient to render them totally impervious to the passage of air.—(*Weber, de Aure et Auditu.* p. 89.)

INSTRUCTION OF THE DEAF AND DUMB.

Since the example and the success of the Abbé de l'Epée awakened the public interest in behalf of the deaf and dumb, numerous establishments have arisen, formed after his model. The art, however, which his genius created, is still far from having attained that degree of perfection which might have been expected, from the labours of so many able instructors. Even the true principles of tuition are not yet agreed upon. Each school has its own method, and even in the same school, the teachers often pursue a different system.

In order to concentrate the scattered facts which bear upon this important subject, a centre of communication was wanted, which might reflect a steadier light on the different branches of instruction; and for this purpose a Journal has been established, in which will be embodied, 1st, all the observations collected during a long experience, or which have been communicated by parents or teachers, on the moral and intellectual state of the deaf and dumb *before* their instruction, and on the development of their faculties, in their ideas, language, and education.

2dly. A comparative estimate of the various methods hitherto employed for the instruction of the deaf and dumb, and notices of the various works published in France or in foreign countries on the same subject.

3dly. An historical notice of all the schools of the deaf and dumb which are known to the editor, and of the most celebrated teachers.

4thly. An exposé of the various methods which seem best adapted, from their simplicity and effect, to promote the object intended.

In short, nothing will be neglected at all bearing on this subject, which touches on some of the most interesting questions in philosophy, morals, and even legislation.

It is hoped that this Journal will remove the obstacles which have too long impeded the progress of the instruction of the deaf and dumb, and that it will contribute to improve and diffuse the practice of an art whose object is to restore so many thousands* of unfortunate beings to the blessings of social life, and the consolations of religion. Eight numbers of the Journal have already appeared.—*Foreign Quarterly Review.*

WESTMINSTER MEDICAL SOCIETY.

To the Editor of The Lancet.

Sir,—In the report of the debate at the Westminster Medical Society, in your last Number, you have mentioned my name, and misconceived my sentiments, in respect to The Lancet. All that I contended for, at the Society, was, *that reports of the debates, if given at all, should be given accurately.* What I said, was rather intended to excite the attention of your reporter in regard to *future* debates, than to convey any censure of the principle on which your Journal is conducted, which I think useful, as it advocates the improvement and candid advancement of medical science, and opposes the spirit of monopoly and of empiricism.

With respect to the publication of my own speeches, as I have no pretensions to any talent for *oratory*, I cannot flatter myself that The Lancet should think them worth reporting. But I do not wish that The Lancet should represent me as hostile to the *press*, or to the most free discussion, and publication of whatever may be said relative to medical or surgical science, in the Westminster Medical Society.

I have the honour to be, Sir,
Your humble servant,
P. Sheil, M.D.

34, St. James's-street,
Dec. 10, 1827.

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* It is calculated that there are upwards of 80,000 deaf and dumb in Europe alone.

THE LANCET.

London, Saturday, December 15, 1827.

We have already stated, that we have no very precise notion of the principles or pretensions which distinguish the different classes of belligerents among the *pure* physicians. It is not every *Pure* who has the simplicity to unveil his purity, and let us into the secret of his pretensions, like Dr. Uwins. Even in the intellect of *Pures*, as in the relations of infinitesimals, differences may be detected. Mind, like matter, is infinitely divisible, and as it requires a peculiar constitution of intellect to give birth to such a declaration of principles as that upon which we commented last week, it may be said that it is not fair to infer from a case of extreme imbecility, that the whole class of *pure* licentiates are as chaste as Dr. Uwins. Other *Pures* may not be equally immaculate; other *Pures*, though they may have vowed to be as obdurate as Dr. Uwins, may have been more frail, or less fortunate, than the Doctor in escaping importunities, and may not have had the virtue to refuse an actual invitation to meet a surgeon on a medical case.

But the follies which disgrace, and the feuds which distract, the different classes of physicians, are of no further importance than as they serve to throw light on the state of the medical profession, and to furnish additional evidence in proof of the necessity of a reform. If the *pure* Licentiates contend that they have a stronger claim to the public confidence than the *pure* Independents, inasmuch as they have undergone the ordeal of an examination from which the *pure* independents shrink, so far, we are ready to admit, they occupy a better position than the Independents. The examination which the licentiate undergoes before the College of Physicians is, no doubt, a very inadequate test of competency; but still it is, *pro tanto*, a security to the public that the licensed practitioner is not wholly incompetent, since it is the interest of the College not to admit too great a number of licentiates, and candidates are, in point of fact, sometimes rejected. Now, in the case of the Independents, or the practitioners possessing a mere Scotch diploma, the public have no security whatever for their competency; for the diploma has either been obtained at a Scotch university, which grants its certificate of ability for the sum of fifteen pounds, or it has been obtained at a Scotch university where, although its degrees are not granted without an examination, it is the interest of the examining body not to reject candidates, and where, in point of fact, candidates are seldom or never rejected.

We are not now considering the question whether the examiners of candidates for a medical degree ought to have an interest in limiting the number of practitioners—though we may observe, in passing, that it is better for the public that they should have an interest in rejecting some, rather than in admitting indiscriminately all the candidates who present themselves—neither are we discussing the question, whether the College of Physicians ought, or ought not, to have the power of licensing medical practitioners. What we maintain is, that, constituted as the profession now is, the public have some, though a very inadequate security for the competency of a licentiate; whereas, they have none whatever for that of the mere possessor of a Scotch diploma. In several instances, some authentic details of which are in our possession, incompetent candidates, for a license to practise, have been rejected by the College. The power of rejection, therefore, possessed by that body, has been so far beneficially exercised, while, on the other hand, it is not likely to be abused, for the only reason which renders the abuse of power, in the hands of any man or set of men, improbable, namely, that it is not their interest to abuse it. We are curious to know whether, during the last ten years, any, and what number of candidates for medical degrees have been rejected, even at those Scotch Universities which do not avowedly grant testimonials of ability for a small pecuniary remuneration; and our curiosity is likely to be gratified, for we believe that, in the next session of Parliament, a motion will be made for a return of the number of physicians and medical practitioners in England, who have graduated at Scotch Universities, distinguishing those who have bought their diplomas at Aberdeen and St. Andrew's, from those who have graduated at Edinburgh and Glasgow; also a return of the number of candidates for the degree of M.D., who have been admitted or rejected at the two last-mentioned universities, during the last ten years. It is evident that some incompetent persons must have presented themselves for examination at those universities, during the last ten years; but if it should turn out, that none have been rejected, the testimonials of competency granted at Edinburgh and Glasgow, will afford as little security to the public, as those which have been openly sold for fifteen pounds at St Andrew's and Aberdeen. In fact, there is so little practical distinction between the medical graduates of different universities, that the very title of "doctor" has fallen into contempt, and one M.D. is as good as another, as the wife of a knighted alderman makes as good a lady *on the Continent*, as a countess in her own right.*

We are aware that the language of the Independents is this; "we do not shrink from examination, but we question the authority of the College of Physicians, and we will not abandon our principles." The plain answer to this is, that the public care not a jot about the lofty pretensions of the Independents; all the public look for, is some satisfactory evidence of their professional competency. "I asked," exclaimed a Scotch Laird, who inherited the pride and the poverty of a long line of ancestry, "for the loan of fifty pounds, and the plebeian *at* whom I asked it, had the meanness to talk of security!" Such is the illiberality which the Independents must expect to encounter; they ask the public to intrust them with their health and lives, and the public are ungenerous enough to require security.

But we have *pure* surgeons, as well as *pure* physicians; and what are the characters by which these immaculates are disinguished from other surgical practitioners? Do they elude classification, like some of the *pure* physicians? or are they easily distinguishable from the sound body medical belonging naturally and obviously to that corrupt, Augæan excrescence, the medical *rump*? It may be observed, in the first place, that the law does not recognise any distinction between *pure* surgeons, and the great body of surgical practitioners; the distinction, therefore, whatever it may be, is of their own creation. Are we to understand *pure* surgery in the sense in which we distinguish *pure* mathematics from mathematics as connected with and applied to the branches of natural philosophy? Do the Pures profess a kind of surgery in the abstract? a species of surgery, uninformed by the spirit of kindred sciences, and unconnected with a knowledge of pathology or therapeutics? If the phrase were used in this sense, we could, undoubtedly, point out many a *pure* surgeon, who possesses indisputable claims to the distinction, and who could no more be accused of bringing any collateral information to the practice of his art, than a cooper, or a cartwright is chargeable, on the average, with an overweening addiction to the study of dynamics. But the purity of this class is, we suspect, explicable on a more simple hypothesis, and resolves itself into a mere affair of pounds and shillings. A *pure* surgeon is one who holds out to the public, that he is ready to prescribe, but not to dispense, medicine to his patients, and that he expects the sum of twenty-one shillings for every prescription or visit his patients receive from him, saving, moreover, the right which the law gives him, of bringing his action in case of non-remuneration, or what he may deem inadequate remuneration for any operation he may perform. It is evident that there is no limitation as to the time at which a member of the College may call himself a *pure* surgeon; a veteran retailer of drugs, who may happen also to be a member of the College, may, at any time, shut up his shop, and declare his purity, or purity may be professed immediately after a student's examination and admission. The ratio of the *soi-disant* Pures, to the great body of English surgeons, is about one to three hundred; supposing, therefore, that this class is, to a man, hostile to the cause of medical reform, its hostility will not be of the smallest practical importance.

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* Some years ago, an ex-mayor of London dazzled the natives of Stuttgard, by wearing his civic gold chain, and was taken for a peer of the first water; the same worthy person afterwards went to Paris, and added to the name on his visiting card, "*feu Lord Mayor de Londres*," but he was of an *em bon point*, which reassured the Swiss porters.

We of course restrict these observations to the *soi-disant Pures* of the surgical profession. We admit that men who have attained great eminence in their profession have a right, in effect, to make their own terms with the public; and that superior ability in the medical, as in all other professions and pursuits, is entitled to superior remuneration. But the fact is, that, in the surgical profession, the superior remuneration is claimed by men who are not entitled to it on the score of ability, but whose pretensions are founded on the holding of offices, for which they are indebted, not to their professional merits, but to the influence of corruption. Let the public look, for instance, at the manner in which hospital surgeons, for the most part, obtain their situations, and decide whether it is possible that fair play can be given to the development of the average amount of talent that might, under a different system, be fostered in those institutions. SIR ASTLEY COOPER on one occasion publicly declared, that there was not a hospital surgeon at ST. THOMAS'S and at GUY'S, who was not either his nephew, or his niece's husband, or connected with him more or less closely by ties pecuniary or domestic. What are the consequences of a system which is thus unblushingly admitted to be founded in corruption? Our hospital surgeons are not only inferior to men holding similar situations in other countries, but they are below par, in point of professional information, as compared with practitioners at home. Some of them are the laughing-stocks of their assembled pupils; some few of them acquire considerable dexterity in the performance of particular operations; but we repeat, that as a body, they are below par in point of professional information, and know less of pathology, less of the nature and treatment of disease, than the mass of general practitioners. Yet these hospital surgeons are Pures *par excellence.* If there be one English surgeon more entitled than another to any distinction that may be due to superior professional attainments, it is MR. LAWRENCE; but this eminent individual scouted, it will be recollected, at the general meeting of practitioners, the designation of *pure* surgeon, and identified himself with the great body of the SURGEONS OF ENGLAND.

We may further observe, that the remarks above made on the different classes of physicians, are to be understood as applying only to the *Bats* and *Pures* of those classes. We do not deny that there are many able practitioners among the possessors of Scotch diplomas; but we contend, that the possession of such diplomas is, of itself, no evidence of competency; that, when the medical profession is established upon a sound basis, no man should be admitted without the test of competency furnished by an *efficient examination*, and that such an examination should be the sole condition of admissibility.

A Manual of Surgical Anatomy, &c. By H. M. Edwards, D. M. P. Translated, with Notes, by William Coulson, Demonstrator of Anatomy at the Medical School, Aldersgate-street. 12mo. pp. 427; Simpkin and Marshall.

Surgical anatomy, or the application of our knowledge of the parts of the human body to the practice of surgery, has been hitherto, for the most part, only incidentally taught in the medical schools of this country. It has been usual for teachers of anatomy to touch occasionally on this subject, and it is of course necessary for lecturers on surgery to dwell with some minuteness on the parts concerned in the principal operations; but few attempts have been made to teach surgical anatomy, or the anatomy of regions, as this science has been termed on the Continent, in a separate or distinct course. The method of teaching anatomy according to regions, instead of systems of the body, more particularly with a view to practical points of surgery, was originally suggested, and partially carried into effect, by Mr. Allan Burns, and Professor Colles of Dublin; but the more full development of this plan by M. Velpeau in his large book entitled, " Traité d'Anatomie Chirurgicale, ou Anatomie des Régions," and others, has given an opportunity to the continental writers to appropriate, as is usual in these cases, the merit which belongs to our countrymen. In the work before us, Dr. Edwards, who is well known as an English physician residing in Paris, and an ingenious physiologist, has completed the design left imperfect by Colles and Burns.

The author has divided the body into seventeen regions, each comprehending a minute description of the parts comprised in it, according to their natural arrangement. The structure, which has been commonly too much neglected by writers on anatomy, although the influence it exercises on various diseases, renders it highly deserving of being studied, has been uniformly described with great accuracy and minuteness by Dr Edwards. We may quote the description of the fascia of perinæum as an instance of the attention which the author has devoted to this part of the subject, as well as of the practical advantage which may be derived from careful investigation of the minute structures of the body.

" The *superficial fascia* is continued behind the scrotum, as a thin layer of cellular tissue. On the median line, it is entirely deprived of fat, and loosely connects the teguments to the subjacent parts. Laterally, it is thicker, and is attached to the rami of the ischia. Around the anus, it can scarcely be distinguished, for the fibres of the external sphincter muscle adhere very closely to the skin. Behind this muscle, the superficial fascia forms on the median line a small band, which extends from the posterior point of the sphincter te the extremity of the coccyx. Laterally, the subcutaneous cellular tissue becomes looser and thicker, and forms along the whole extent of the nates an elastic cushion, which contributes in great measure to give to this eminence its round and projecting form. From this arrangement, it happens that the tumours which develop themselves in this part, may acquire a considerable size, without causing ulceration of the skin, and that the collections of matter in this part rapidly extend to the perineum and thigh, unless they are early opened. But the external sphincter muscles prevent the separation of the skin in the immediate neighbourhood of the anus, as well as the formation of abscesses in this part, unless they are extremely small and circumscribed.

" Immediately beneath the cellular layer of which we have been speaking, an aponeurotic membrane is situated, the thickness and appearance of which vary considerably in the different parts of this region. Anteriorly, it gradually degenerates into cellular tissue, and is lost on the scrotum and the fibrous covering of the corpora cavernosa. On the lateral parts of the perineum it is inserted into the rami of the ischia conjointly with the erectores penis. Lastly, a little beyond the posterior edge of the transverse muscle of the perineum, this cellular aponeurotic layer, which may be called the *perineal fascia*, is continued into the *recto-urethral aponeurosis*, which is situated at first deeply in the perineum, then becomes superficial in this point, and covers the inferior surface of the levator ani muscle. The posterior or anal portion of this aponeurosis is very thin, and almost cellular; it sends a great number of white filaments into the fatty cellular tissue on the edge of the anus, and passes beneath the sphincter, to be attached to the rectum. Laterally, it is inserted into the ischium and the falciform edge of the sciatic ligament, forming almost a right angle with the pelvic aponeurosis. This aponeurosis thus lines the whole inferior portion of the pelvis, and presents several openings for the passage of the subcutaneous blood-vessels; that through which the superficial artery of the perineum, its vein, and nerves pass, is the most important, and is situated near the outer edge of the posterior extremity of the transverse muscle of the perineum.

The following observations on dislocation of the scapular extremity of the humerus, are deserving of attention:—

" Dislocation of the scapular extremity of the humerus may take place forwards and backwards, but not upwards, excepting in a consecutive manner. Dislocation downwards is the most frequent, although the elevation of the arm may be carried to a great degree without the head of the humerus being entirely removed from the glenoid cavity, owing to the vertical direction of the great diameter of this articular surface. It appears that the contraction of the muscles is sufficient to produce this accident; but, in general, it depends on their action joined to that of an external violence, which is most frequently communicated to the elbow during its separation from the body, and whilst it is resting on a solid surface. In fact, if, in a case of this kind, the pectoralis major, latissimus dorsi, and teres major contract with force, they would not move the elbow, as this part rests on the ground, and, consequently, the superior extremity of the humerus would become the moveable point on which they act. The humerus would then represent a lever of the third order, the fulcrum being the elbow, and the point of resistance the scapulo-humeral articulation, a lever, the action of which is great in proportion as the moving power is placed near to the moveable point. In dislocations from muscular power alone, it is the deltoid, which, during its contraction, represents the fulcrum of this lever, and the pectoralis major, latissimus dorsi, and teres major, act as the moving powers. It is thus evident, that this displacement is much more difficult of reduction, for, in this case, the length of the arm of the lever from the power is equal to the distance which separates the point of attachment of the deltoid from that of the pectoralis major, whilst in the preceding case it is equal to the whole of the distance which exists between the insertion of this muscle and the extremity of the elbow. When the head of the humerus thus escapes by the inferior part of the glenoid cavity, it rests on the anterior edge of the scapula, between the tendons of the long portion of the triceps and the subscapularis muscle, so that it cannot afterwards be displaced, excepting inwards, which is not unlikely to happen, in consequence of the obliquity and narrowness of the edge of the scapula.

" Dislocation of the humerus forwards is much less frequent than that downwards, although it is not difficult to carry the arm sufficiently far backwards for this bone to form an acute angle with the glenoid surface. The rareness of this accident appears principally to depend on the arrangement of the subscapularis muscle, and the pectoralis major and latissimus dorsi, &c., which can scarcely contribute to this kind of displacement, on account of their direction to the bone. Dislocation backwards has been observed; but this is more rare, for the trunk can scarcely allow the arm to be carried sufficiently forward for the articular surfaces to be inclined one on the other, so as to form an acute angle."

The practical remarks of the author are judicious, and the few notes of the translator are calculated to add to the value of the work. In conclusion, we recommend this manual to the student and to the practitioner; to the former, as a useful companion in the dissecting-room, and to the latter, as a valuable and convenient book of reference, comprehending most of the practical points, on which he may have occasion to refresh his memory, and some observations and suggestions which will probably add to his professional knowledge.

PHRENOLOGY.

The brain of the man who was hanged on Monday last for murder, at Chelmsford, was yesterday examined by Dr. Forster and Dr. Venables, and by the report of the former, the organs of determinativeness and pugnacity were much developed. Destructiveness was not wanting; and, in general, there was a great preponderance of the animal over the intellectual and human faculties. Veneration large; and during life, he was a great quoter of scripture.

December 12, 1827.

WESTMINSTER MEDICAL SOCIETY.

Saturday, December 8, 1827.

This evening, Dr. Barry, who has been recently elected one of the presidents, officiated as chairman for the first time. He returned thanks to the Society in a speech of some length.

Mr. Bennett rose and said, that he lamented the bad taste which, of late, had induced some members of the Society to attempt to establish a distinction between surgery and medicine. Such distinction might hold in a *trading* point of view, but, considered purely as a matter of science, the attempt to separate the two was absurd: it was therefore on this account, that he had chosen a subject for discussion, which would show the intimate and inseparable nature of medicine and surgery. He would entitle it, "*On the analogy and identity of the phenomena of external and internal disease.*" Mr. Bennett then proceeded to the inquiry, whether *all* diseases were not preceded by, or accompanied with, inflammation; such was the opinion of some pathologists, and he was disposed to agree with them. Mr. Bennett then enumerated the phenomena observable in the capillary system, under inflammation, first speaking of its ordinary and healthy functions. The *effects* of inflammation were next considered, and the effusion of serum in the external cellular tissue, constituting œdema, shown to be merely the same result which ensues from internal inflammation, hence hydro-thorax, hydrocephalus, &c. The effusion of lymph, which takes place internally from acute inflammation, Mr. Bennett said, was also observable on the external parts of the body. In this manner did Mr. Bennett argue, generally, for the analogy of external and internal disease, which point, if clearly established, would of necessity lead to the proof of the assertion which he set out with, namely, that medicine and surgery are one and indivisible.

As might naturally be anticipated, from a subject so comprehensive, a debate ensued equally comprehensive. A *grand sortie* was made upon Mr. Bennett, with respect to his supposed assertion, that all diseases originated in inflammation. Dr. Johnson instanced many neuralgic affections, as contradictory of this opinion. Even Broussias, "the prince of pathologists," said Dr. Johnson, has admitted that an excitation of the nerves constituting *disease*, may exist without a disturbance of the vascular system. Mr. Lambert and Dr. Milligan held similar opinions to Dr. Johnson; the former gentleman remarking, that if the principle were admitted that all diseases were inflammatory, then the celebrated Sangrado was an excellent practitioner. He further observed, that serous effusion was not invariably the product of inflammation, but that it might and did arise from a state of congestion, and instanced the sudden effusion of serum into the ventricles of the brain with old people, in cold weather.

It should seem, however, that much "good indignation" was thrown away, as Mr. Bennett denied having assumed that *all* diseases were inflammatory; the *non-analogous* accidental tissues, probably, did not result from inflammation. He observed, that part might be inflamed during life, and yet exhibit no symptoms after death, as in the case of erysipelas. And it was further to be observed, that the appearances of redness would subside, in proportion as the post-mortem examination was delayed, which he had particularly remarked in the stomach of dogs poisoned by injecting croton oil into the jugular vein.

Dr. Milligan, in remarking that the phenomena of inflammation were not the same in all parts of the body, and referring to the differences observable in inflammation of the various structures of the lungs, made some allusions to the stethoscope. Dr. Milligan affirmed, that no man could absolutely practise his profession successfully, without having recourse to this instrument.

Dr. Gregory *alone* was opposed to the stethoscope, but offered no reasons; Dr. Somerville, Dr. Johnson, Mr. Bennett, Dr. Webster, and other members, spoke strongly in favour of the stethoscope.

It was affirmed by Dr. Milligan, that the "Sage of Cos" was the first auscultator; but Dr. Johnson said, that he had upon this point referred especially to the works of Hippocrates, and found that only upon one occasion did he apply his ear to the chest, and this was in a case of hydrothorax; the patient was, at the same time, shaken about.

The Society parted at ten o'clock, with the understanding, that the subject would be renewed at the next meeting.

LONDON MEDICAL SOCIETY.

December 10.

Dr. Haslam, President, in the Chair.

Mr. **Bryant**, of Kennington, related a case of abscess within the cerebellum, which had lately occurred in his practice, and exhibited the morbid parts to the Society. It seems that the patient was for some time indisposed generally, but manifested no other symptom of disease within the head, than trifling pain, which was, in a great measure, overlooked. After a time, however, signs of serious mischief within the head were discovered; there was partial paralysis of the upper and lower extremities, with a degree of coma, and an oppressed state of pulse; under these symptoms the patient died. The appearances observed, on examining the head, were, that the longitudinal and other sinuses were much loaded with blood. On the posterior part of the tunica arachnoides, were small patches of adhesive matter; the pia mater was much thickened, and its vessels much engorged. The substance of the brain, generally, was more vascular than natural; the ventricles contained a large portion of fluid, and the plexus choroides was pale; the corpus callosum was much softer than natural, and presented many red points. Upon cutting through the nerves, with a view of removing the brain, at its base, the finger passed into an abscess, situated at the under part of the right lobe of the cerebellum, and about half an ounce of pus escaped. Mr. Bryant having related the particulars of the case, proceeded to offer some brief observations thereon. He thought it somewhat extraordinary, that such extensive disorganisation of the brain should go on without being more clearly indicated by symptoms. And he inquired whether this proceeded from the peculiar situation of the disease in the brain, or whether it was attributable to peculiarity of constitution—a less than ordinary degree of susceptibility.

Mr. **Shirley** spoke of a case, in which an abscess was also found in the cerebellum, unattended by symptoms indicative of so much disease; in this case, however, the *liver* was found to be extensively diseased, and he inquired of Mr. Bryant, with respect to the state of that viscus, in the case under consideration. Mr. Bryant said, that no other part of the body than the head was examined.

Dr. **Shearman** thought that this case bore strongly upon the doctrine of fever being dependent upon inflammation of the brain; here were clear evidences of inflammation having existed, and that to an intense degree; yet, as stated by Mr. Bryant, there were no signs of fever. If inflammation of the brain were the proximate cause of fever, it followed as a matter of course (provided the doctrine were true), that so much the more intense the cause, so would be the effect.

Dr. **Clutterbuck** entered into a long explanation of his doctrine respecting fever, which is ground that we scarcely need go over, it being so well known, and having so recently appeared in the pages of this Journal. Dr. Clutterbuck was very well replied to by Mr. Proctor, Mr. Weller, and Mr. Shirley, but nothing further, of material importance, was elicited.

The Society parted at the usual hour.

MEDICO-CHIRURGICAL SOCIETY,

December 11, 1827.

Benjamin Travers, Esq., President.

A paper by Mr. **Wallace**, of Dublin, on a peculiar form of inflammation of the eye, was read to the Society. During an attack of intermittent fever, iritis, with inflammatory affection of other parts of the eye, occurred in a patient under Mr. Wallace's care; for the former complaint this Gentleman administered bark, by the exhibition of which he was surprised at seeing the affection of the eye as well as the fever disappear. Mr. Wallace related several cases, some of which came under his notice and others under that of his friends, in which bark afforded speedy and decided relief for an inflammatory affection of the iris. The peculiarity of the complaint consisted in its being preceded by amaurotic symptoms, which continued even long after the visible signs of inflammation had ceased. In some cases there was intolerance of light, with inflammation of the choroid, sclerotica and conjunctiva, tenderness of the globe, or a severe pain in the region of the orbit. In others, the eye was insensible to the action of light, and the inflammation of the tunics slight. But in all the cases the iris was affected, and the affection was removed by the use of bark. It is important to observe, that the complaint in the eye supervened in almost every instance, after an attack of fever. In some cases mercury had been previously given without any benefit, and in others little or none had been used; merely aperient medicines, and in all bark afforded equal relief. Excepting in one or two cases, no topical means had been employed. Powdered bark, in half-drachm doses, every four or six hours, or the sulphate of quinine, in the form of a mixture, was given.

Mr. Lloyd said, that he would ask Dr. Tweedie, whose experience in the treatment of fever must be very considerable, whether he had often met with this form of inflammation of the eye, or indeed any kind of ophthalmia after fever.

Dr. Tweedie replied, that he had not observed any case in which ophthalmia had occurred in a patient convalescent from fever. The cases which had just been read to the Society were undoubtedly deserving every attention, but he conceived that they could not be considered as an effect of the fever, but as arising from some epidemic which prevailed at the time.

The President observed, that Mr. Wallace, to his knowledge, had some years ago attended for a long time the eye infirmaries of this town, and subsequently paid considerable attention to this branch of practice, so that he was, in every point of view, competent to detect the minute forms of ophthalmic disease, and the accuracy of his descriptions might consequently be relied on. That bark would arrest some forms of inflammation there was no doubt, but the peculiarity in the present instance was, that in inflammations of so varied and mixed a character, the administration of bark was followed by the same marked benefit, thus rendering it more difficult to understand the action of the remedy. It was, however, to be borne in mind, that in some cases mercury had been freely employed, and the constitution almost saturated with it, and in others it had been employed as a purge, and the patient treated on the antiphlogistic plan; still as no topical means had been employed, the action of the bark was very striking, and the relief of the patient could only be attributed to it. The bark was administered in these cases in much larger doses than in rheumatic ophthalmia, where it was recommended to be given in small doses, combined with soda, and at short intervals. The information which had been communicated to the Society by Mr. Wallace, he considered highly deserving attention, and likely to add very much to our knowledge of the treatment of that form of disease to which it related.

After a few observations from Mr. Lloyd and Mr. Travers, the Society adjourned to Tuesday, January 8th.

ROYAL INFIRMARY, EDINBURGH.

"*Second Fatal Case of Erysipelas supervening on the Removal of a Cancerous Ulcer from the lower and part of the upper Eye-lid.*"

There are few features in the present case to distinguish it from that which preceded it, except that the treatment was somewhat more active, though the progress of the disease to a fatal termination was still more rapid. Blood, it will be observed, was freely and frequently abstracted in this instance, but at a time when the intensity of the cerebral affection, by extorting the practice, also indicated that it was too far advanced to be controlled by depletion. Scarifications were also tried on the scalp, but they were so few, superficial, and made at so late a period in the course of the complaint, that no inference of the utility or insufficiency of the remedy could be deduced.

James Mitchel, aged 45, a tall athletic sailor, was admitted into the Hospital, under the care of Dr. Hunter, on the 11th of November, for a small carcinomatous ulcer, occupying about two-thirds of the lower, and one-third of the upper eye-lid, towards the external canthus. The ulcer presented the common appearances of cancer in the skin, being of a bright red colour in the bottom, with uneven elevated margin, and attended by pain of a lancinating kind, shooting from the part into the eye and its vicinity, and by occasional hæmorrhage from its surface. He stated, that about nine years ago, it commenced in a small warty excrescence, which, by alternately scabbing and ulcerating, has gone on gradually to produce the disease described. The interior of the eye, with the exception of a slight vascularity of the conjunctiva opposite the ulcer, was entirely free from disease; and he otherwise enjoyed good health previous to his admission. On the 16th of November the whole of the morbid parts was removed by Dr. Hunter, by passing a bistoury through the superior palpebra, and dissecting out the diseased structure with a scalpel and forceps in an extremely tedious and confused manner. One small vessel was tied; and a pledget of lint dipped in cold water applied over the wound.

17. Complains of a slight pain extending from the wound to the head; otherwise he has spent a good night; the pulse is as low as 48; the skin cool; tongue clean and moist, and bowels have been opened twice since the operation.

18. The pain which he now describes as of a lancinating character, though producing little uneasiness, having rested tolerably well in the night, still continues to shoot from the wound through the head.

Pulse 60; secretions regular, and appetite unimpaired.

19. Much the same in all respects, as represented in the preceding report; has rested well during the night; pulse sixty; bowels open; tongue rather whitish, and complains vaguely of general headach. Appearance of the wound such as one of its duration usually assumes.

20. States that the headach has increased, and disturbed him much in the night; pulse 82; tongue furring in the centre; has had two motions since last visit; aspect of the wound and temperature of the surface unaltered.

21. He has had a change for the worse since yesterday; complains of an aggravation of the headach, and of some pain in the abdomen; pulse 83; tongue more furred; skin hot and dry; and bowels scantily opened twice since yesterday. The wound presents a dark unhealthy appearance, around which there is an areola of an erysipelatous blush within the boundaries of the orbit. Ordered to be bled to twenty ounces; to take an ounce of castor immediately, to be followed by a purging enema, should the other medicine not speedily operate; and the wound to be covered with a poultice.

22. Considers himself relieved this morning, though his general appearance would indicate the contrary; the blood taken away yesterday is sizy, and buffed in one of the cups; pulse about 90; bowels opened four times by medicine; and pain of head, though less, there is a tendency to drowsiness. The wound looks much cleaner and healthier, but the erysipelas is still extending, being now diffused over one of the frontal muscles above, and the lower margin of the orbicular muscle below. Three or four superficial scarifications have been made over the eye-brow; the bleeding to be encouraged by stupes; infusion of senna, with tartrate of antimony, to be taken during the day; five grains of calomel at bed time, and an ounce of castor oil in the morning.

23. He was bled again yesterday to sixteen ounces, from which he experienced some relief; blood slightly buffed; much easier in the night; pulse 90; bowels have been freely opened, but attended with severe griping pains. Erysipelas still extends on the scalp and upper part of side-face; wound so much improved, that the poultice was discontinued for simple dressing; head to be well fomented, and the senna and antimony repeated.

24. Sixteen ounces of blood were abstracted yesterday; states himself to have rested tolerably well in the night; pulse 92; and bowels freely evacuated. The local appearances of the wound and erysipelas much the same as in the last report; and no alteration in the treatment has been announced.

25. On visiting him this morning, found him violently ill, and throwing up a large quantity of phlegm, probably the effect of the antimonial medicine which he had been taking; otherwise he states himself improved; but little reliance can be placed on his representations, which are vague and unsatisfactory, probably from the state of the head; pulse 94; bowels opened once; redness of erysipelas much abated; wound clean, and discharge healthy. Antimonial solution to be discontinued; beef-tea for food, and a colocynth pill at night.

26. Has spent a very restless night, which he attributes principally to pains felt in the joints of the hands and ancles; tendency to drowsiness much increased, with a slight imperfection of his articulation, and laborious breathing; pulse 72; bowels twice opened; and has taken some food. Erysipelas more diffused over the scalp, but the redness is much diminished; and the ulcer has a dry irritable aspect. Ordered to take a blue pill night and morning; and a large blister to be applied to the nape of the neck, to prevent, as Dr. Hunter stated, effusion into the ventricles of the brain.

27. The house report states, that his pulse having become sharp, and risen to 104 this morning, he was again bled to sixteen ounces; he has been quite incoherent during the night; tongue brown, and dry in the centre; has had several watery stools through the night; pulse at present about 96, feeble, and he breathes laboriously. Erysipelas has almost entirely disappeared, and the wound somewhat improved; ordered simple saline solution; and the poultice to be resumed over the wound and eye.

28. Constitutional symptoms much aggravated since yesterday, having been alternately in a state of coma and low delirium through the night; he is now conscious of questions proposed to him, and though complaining of no pain, his features and position are widely indicative of extreme distress, the extremities being drawn upwards, the mouth partially open, and the respiration performed with great difficulty. Pulse 92; tongue (with difficulty protruded) parched, and brown in the centre; bowels have been freely opened. Ordered a large blister to the nape of the neck; sinapisms to the feet; and a dose of castor oil to be immediately administered.

The coma increased during the day, and he died about one o'clock at night; no post-mortem examination of this patient has been publicly performed.

Scotus.

Edinburgh, Nov. 6, 1827.

THE FACULTY OF PHYSIC.

To the Editor of THE LANCET.

SIR,—Did not the discussion respecting the Faculty of Physic involve, in a considerable degree, the respectability and importance of the great body of your readers, viz. the general practitioners; and did not the principles promulgated in your Journal, tend to support that class, I might feel it necessary to make some apology for again claiming attention to the subject. I felt no surprise, Sir, to find a reply to my second letter, substantiating the charges preferred in my first against the Faculty of Physic; for, to have passed over in silence those proofs of the spirit which actuates that body, would have been tacitly to have admitted their truth, and the society, disrobed of its cloak of philanthropy, would have appeared arrayed in the garb of selfishness, and have received the obloquy which never fails to attend men, when they endeavour to compass private ends under the mask of public virtue; therefore, it is not to be wondered at, that the Associate should again attempt a reply, and to examine this reply, is the purpose of my present observations. It has been observed at the bar, that the less tenable the cause, the more confident is the advocate; and thus my opponent commences, by an affectation of superiority, "hoping to be brief," "it needing but little argument," &c. &c. Notwithstanding this boasted assumption, we find this considerably longer than his former reply. He proceeds to inform us, that "with dispositions not unkind," he regarded my attack as the "hasty expression of excited feeling;" now, this is language which I confess myself at a loss to understand. If a man publicly makes observations that are incorrect, or advances arguments that are untenable, he must abide the exposure of an antagonist, and the only courtesy that I am aware ought to be observed, is the refraining from *personal* observations. If my opponent is a private friend, I hope he still entertains for me the same "kind dispositions" which he did previously to the publication of my observations on a body of which he is one of the members. Passing on, we find your readers' attention solicited to a distinction which I have been pleased to overlook, viz. the division of the "circular" into several parts; first, an address to physicians; secondly, a declaration of the principles on which the association was founded; thirdly, the rules of the association; and fourthly, a representation of facts respecting the general state of the profession, condensed from a published work, &c. &c.—he proceeds: "It would have been but just in Mr. Simpson to have founded his charges on the avowed principles of the association, but with very slight notice of these, his proofs, as he terms them, rest on garbled passages, extracted from the last division of the circular, a section in which no purpose of the association is declared." Thus, Sir, I am accused of injustice in not founding my charges on the avowed *principles* of the association, but resting my proofs on garbled passages, extracted from the resolutions. Without making a remark on what resolutions are usually understood to embody, we will take the definition of the association itself from their circular, where we are informed that they have published, through the medium of Messrs. Longman and Co., a book to which reference may be made, as illustrative of the *principles* and *views* of the association; but, in the mean time, it has been thought right to give in the present circular, its principal heads, under the form of *resolutions*. "Then these resolutions contain the principal heads of a book, which is illustrative of the *principles* and *views* of the association," in order that no person who joins them may be able to allege, that any of the PRINCIPLES of the associates have been misrepresented or concealed." And yet, forsooth, I am accused of injustice, in not founding my charges on the avowed principles of the association, but on these resolutions, in which no purpose of the association is declared!!! He proceeds: "not content with confounding authorities so *dissimilar* and *unequal*, he extends his views to anonymous letters." Is not the association itself anonymous? "On turning to the letter, &c. &c., and on reading it through, I fail to discover a single expression to connect the writer with the Faculty of Physic." As a comment on this, I will extract a few lines from the letter alluded to:—"To promote this *desirable change*, (viz., to annihilate the general practitioner,) a certain number of independant physicians have formed themselves into an association, to which medical graduates of all universities are eligible, wherever situated." Again:—"The BENEFITS of becoming members of an independant body, like the 'FACULTY of PHYSIC,' on the one hand, and the disgrace of becoming appendages to a monopoly, like the College of Physicians, on the other, must be now apparent to the world." After reading the latter quotation, I will appeal, with confidence, to the candour of your readers, whether I was not justified in referring to this production as "a letter issued by one of their body?" Is it at all probable, that a man would speak in such high terms of the benefits accruing from becoming a member of an association and not be one himself? I will ask my opponent, whether he cannot now discover "a single expression to connect the writer with the Faculty of Physic?" and whether I was not justified in extracting from it collateral evidence of the "designs of the Faculty of Physic?" The circular is a cunningly-devised and somewhat masked attack on the general practitioner, but the "Independent Physician" has, with an imprudent ardour and intemperate zeal, divulged the secrets of the conclave. To disown and condemn so dangerous an advocate was the only course left for the Associate. But I will ask any one, after having perused the circular and the letter of the "Independent Physician," whether one and the same spirit breathes not through them both? He now proceeds to rebut my proofs, and expresses his surprise that my first proof is directed to show, that the object of the Society is to remodel the whole medical profession, and designates it a new charge. Now I must beg leave to contend, that instead of being a new charge, that it comprehends both the others; for the practice of medicine being divided between the physician and general practitioner, then to remodel must mean to make some change in these departments. What that change is, the whole tenor of the circular will show to be to increase the physicians, and consequently to diminish the general practitioners. By whom is this remodelling set on foot? By physicians, a class of men *interested* in the change. I will ask, then, whether this charge of remodelling does not comprehend both the other charges, and of consequence is not a new charge. Although each department may want remodelling and readapting to the improvement of the times and the increase of intelligence, it does not follow that change should be subservient to the limited and interested views of a class of men, to the majority of whom any change would afford benefit.

To digress for a moment on the subject of medical legislation, I should say, that the public, not being at all competent to judge of the ability or knowledge of a medical attendant, they ought, therefore, to have some *test of fitness* in cases involving the health, happiness, and often the life of mankind. This test is not properly supplied by either the College of Physicians or College of Surgeons, and that supplied by the Company of Apothecaries is so *wholly* insufficient and improper, that it cannot fail to be alike injurious to the public and degrading to the respectable general practitioner. Common sense would teach us, that this test of fitness ought to be supplied by a competent tribunal, *uninterested* in the issue, and that the examination should include every branch of the healing art, without distinction.—Such a qualification would afford confidence to the public, and ensure respectability to the profession. My opponent, then, will perceive, that I entertain for the Apothecaries' Act the same opinion as himself, but upon very different principles: first, on public grounds, because it is not a sufficient guarantee of competency; secondly, on private grounds, because I consider the respectable part of the body to which I belong, degraded by being placed on a level with men who have never studied medicine as a science, but empirically; whose habits and acquirements are more suited to manipulation than scientific research. But on what principles does the Associate condemn the Apothecaries' Act? On those pure philanthropic principles which are propounded in the circular! Oh! no; but because it gives to the apothecary "a complete monopoly of the department of general practice." I would ask, in which principle the philanthropy exists? After a great deal of argument on the propriety of remodelling the profession, we come to a denial that the special efforts of the Association have any such direction, but that is merely a conjectural anticipation. A pretty strong conjecture, I must confess, beginning, "there cannot be a doubt." Proceeding with my proofs, aware of the weakness of his argument, he takes advantage of the distinction which he had, at the outset, laboured to establish between the principles and resolutions, which I have shown to be futile, and says, "abandoning the declaration of principles by which, in justice the Association ought to be tried, he quotes a passage from the supplementary part of the circular." I had remarked, in my last letter, that from the use of the words in the circular, of "the *healthy* state of the profession in France, and the *unhealthy* state in England," it obviously followed, that the proportions and divisions which existed in France were proper, and those in England improper. The Associate remarks on this, "how such a conclusion follows, my logic must explain:" and, instead of rebutting it, he refers your readers to the whole passage, that they may interpret it more justly. I will ask my opponent, if he met a friend, and on examination found his animal functions in a *proper* state, whether he would not say, that he was in a *healthy* state? or, *vice versâ*, if he found them in an *improper* state, whether he would not say, that he was in a *unhealthy* state! He asks, has the association founded on this any proposition? Have they not agreed that petitions to the Crown, *founded* on the resolutions, should be presented, with a view to ulterior proceedings? He answers, "by no means; they contend ONLY for free competition, from which their present restrictions debar them." Then, I ask, why not be content with reforming the College of Physicians, the *fons et origo mali*, and thus place themselves in a condition for a free competition. He again refers to the terms healthy and unhealthy, "the former being the result of unbiassed choice, the other of forced restriction," and denominates them, "expressions of fact and not of opinion." Yes, but if the fact be that one state is forced and the other unbiassed, it is not difficult to judge on which side the opinion will fall. But I deny that the difference of the proportions and divisions of medical attendants which exist in France, compared with England, is the result of any legal restrictions. Are not the causes to be sought for in the difference of the habits and manners of the people? The fact is, in this country, the respect for the *name* of physician is fast passing away, and will soon be entombed with that formerly entertained for those alike two important appendages, the wig and cane of former times; the public look to talent in the medical profession, and care but little in which division it is found. Of this, I believe, the Associate to be fully aware, for on advocating the merits of the respectable general practitioner, and considering him, from his education and opportunities of acquiring knowledge, as fully entitled to the confidence of the community as the physician, I am told, "the relative merits of the respective branches is happily not here the question."

Having thus far entered into the subject at issue, I will add a few words, in explanation, as regards myself. My opponent says, he doubts not I shall, on *further* reflection, admit that the physicians are fully warranted in seeking free competition.—Surely, if he has attentively read my letters, he will perceive I have unequivocally advocated their cause to that extent. He says, if I have read some tracts, to which he has referred me, I shall be sensible that he is no enemy to the general practitioner. From not having those tracts immediately at hand I have not referred to them, but he must perceive, at the conclusion of my last letter, that I acquit him, personally, of any hostility to the general practitioner. But to the Association, with a slight transposition, I may apply the words of Sheridan:—"Though in the tablet of the volume of their minds there may be some marginal note of reforming the College of Physicians, the whole text is occupied with the destruction of the general practitioner."

I am, Sir, yours, &c.

W. Simpson.

Hammersmith, Oct. 14, 1827.

ERYSIPELAS.

To the Editor of The Lancet.

Sir,—Having lately read in several Numbers of your widely-circulated and valuable Journal, and particularly in the number, dated the 24th Nov. last, (which came to me this morning, Dec. 3d,) the discussions of the Medico-Chirurgical Society of London, of which I am a member, on Mr. Lawrence's paper on Erysipelas, together with the reply of that able and learned author to such objections as had been made by different members to his views of treating that disease; I am induced to transmit to you some remarks, hastily written, on that subject.

You well know, Sir, that in June, 1825, I published a small 8vo. work on the disease, which had produced a most alarming fatatity amongst the artificers of the Plymouth Dock-yard, which disease had been erroneously called in the newspapers, "*The Plymouth Dock-Yard Disease*," and compared by its fatality to the plague itself.

To that disease, which, in the majority of instances was distinctly traumatic erysipelas, I ventured to give the name of "*irritative fever*;" because the same sort of fever, delirium, and death followed in patients who were not affected with erysipelatous redness of the skin. I preferred, therefore, the name of irritative fever to traumatic erysipelas as being more expressive, because by the latter we mean cutaneous disease somewhere, which the former term does not necessarily imply.

You also know that I had no official connexion with the dock-yard, and consequently no right to meddle with its affairs. The cause of humanity, however, and the professional character of the town, in which I practised, awakened my attention and loudly called for the account which I have ventured to publish of this fatal and alarming disease.

The official documents were intrusted to my charge for publication by Mr. Dryden, the only surviving officer of the establishment, after Dr. Bell's death, and without this aid and the expenses of publication, solely incurred by myself, neither the profession nor the public would have ever had any authentic account, in all probability, of this disease, which, at the time, created a greater sensation in the country than any other which had occurred for a long series of years. Your excellent review of my book on Irritative Fever, and the many long critiques upon it in other publications, have extensively drawn the attention of medical men to its contents. I am the more surprised, therefore, after reading your reports of the late discussions on erysipelas at the Medical and Chirurgical Society in London, *not* to find some notice, or mention, made of this book by Mr. Lawrence, who, by your account, has read before the Society a most elaborate, long, and practical paper on erysipelas, availing himself obviously of the information given in my book, and yet studiously avoiding any mention of it; and when his attention was drawn to it by an anonymous speaker on the 27th October, then he was silent on its contents. From one of two motives must this silence on the part of Mr. Lawrence have arisen:—1st. Either that he is, or was, ignorant of the work itself; 2ndly, or that he inculcates a practice opposite to that advocated in my book.

After the numerous reviews of the book in question—after having directed my bookseller to present Mr. Lawrence with a copy of it—after nearly twenty years acquaintance with him—I cannot suppose Mr. Lawrence altogether ignorant of the existence of such a book; and if he adopted and recommended a practice diametrically opposite to that which the deduction from this book justified, why did he not candidly notice it, admit the value of the cases, and reject the reasoning on them? To say the least of the cases, and not a word on the remarks accompanying them, as a body, occurring under eventful circumstances, they will be found more useful, I will venture to affirm, in settling the disputed treatment of erysipelas, than any given number of cases ever laid before the public. I took infinite pains to give the histories of them correctly and fully, both from Mr. Dryden's records and from the individual testimonies of the friends of the deceased artificers. Mr. Lawrence has acted, to say the least, therefore, with great partiality in refusing all notice of these most important cases, whilst writing expressly on the subject of them.

As a professor of surgery—as a hospital surgeon—as a master and director of young men—as the author of an elaborate paper, written expressly, according to his own statement, with the view of settling and determining the proper treatment of a disease about which medical men differ widely in opinion—ought he not to have brought forward the published opinions and practice of other medical men, and blended or contrasted them with his own? We all know the powers of eloquence and argument, and that Mr. Lawrence, with these mighty engines at his command, may make the worse appear the better still. But these are not required in the sober practice of physic—truth we want, simple truth—not sophistry. Mr. Lawrence might have the power of making a practice successful in his own hands, but if a like practice fail on repetition with others, it will fall into that disrepute and neglect ever attendant on ill success.

Bloodletting, which Mr. Lawrence has so strenuously set forth, received the fairest trial with some of the Dock-yard patients, and it failed in toto. No person, I believe, would be hardy enough to attempt the repetition of a similar practice, on the recurrence of similar cases, not even on the high authority of Mr. Lawrence, nor of any other person whose theories and doctrines are at variance with experience and common sense. If Mr. Lawrence's paper, the purport of which by the way I can only glean from The Lancet, resolves itself into a question of experience, surely the testimonies of other medical men ought to be weighed in the same scale with his own, and the "*graduations of the antiphlogistic treatment*," so much dwelt upon, estimated by all. It was not surprising, therefore, that Mr. Lawrence should have failed in converting the members of the Medical and Chirurgical Society to his own peculiar views and opinions, although he did every thing, I doubt not, which eloquence and ability could command, when his reasoning was opposed to the facts and experience of other practitioners. The remarks of the President, Mr. Travers, of Dr. Birkbeck, Dr. Babington, Mr. Guthrie, Mr. C. Hutchison, Brodie, Cooper, and others, deserve much weight and consideration. These authors have had great experience; have eyes, and can see,—reasoning faculties, and can employ them, perhaps as well as Mr. Lawrence, and yet dissent from his doctrines. It is remarkable that Mr. C. Hutchison, to whom praise is given for first suggesting the practice of incisions in erysipelas phlegmonodes—a practice which Mr. Lawrence professes to copy from him—should also differ with Mr. Lawrence on the best way of making them; the former preferring many small incisions, from one inch to one inch and a half, and the latter, one uninterrupted incision of fourteen inches in length. I would infer, therefore, that Mr. Lawrence has most lamentably failed in convincing others that his practice is the best which can be employed for the cure of erysipelas. According to his views, erysipelas is inflammation, and the remedy, antiphlogistic measures "*graduated*"—a most pernicious doctrine, which I have elsewhere combated. One of these "*graduated measures*" for erysipelas we should wish to have sent down to Plymouth, where the disease prevails, lest that we might overdose our patients. In a word, his practice rests on the following means—1. Bleeding; 2. Incisions.

I have already said so much about the former, in the book on Irritative Fever, to which I beg to refer the reader, that I am unwilling either to recapitulate, or amplify the subject at present. No medical man of experience, can doubt the necessity of bleeding some patients with erysipelas, particularly the gross and full, whilst every person would hesitate to bleed thin and cachectic people.

Erysipelas, like gout and continued fever, will run a certain course. It cannot be "*put out*," like the flame of a candle, with an "*extinguisher*," nor "cut down *with the lancet*" like an olive branch. These figurative expressions, ill-suit the sober and variable practice of physic.

About incisions, however, I would beg to observe, that we have given rather too much praise to Mr. C. Hutchison, not for adopting, but for originally suggesting, the practice. Incisions were taught by Celsus, recommended by Pott, and followed by the common shepherds of this country, for the cure of that form of erysipelas usually called phlegmonodes.

Celsus says, as I have elsewhere stated,* "Quidquid aridum est, et intentione quadam proximum quoque locum male habet, usque sanum corpus concidere." Celsus, p. 196.—And again, when speaking of various means, gives a preference to fire, "Nihil melius est quam protinus adurere." Lib. v. p. 28.— Pott elegantly observes, "When the inflammation is of this kind (the erysipelatous) the quantity of matter formed is small, compared to the size and extent of the tumour; the disease is rather a sloughy, putrid state of the cellular membrane, than an imposthumation; and therefore, *the sooner it is opened the better*;" if we wait for the matter to point, we shall wait for what will not happen, at least, not till after a considerable length of time, during which, the disease in the membrane will extend itself, and consequently, the cavity of the sinus or abscess, be thereby greatly increased.† And again he speaks of this practice more decidedly:—"What assistance art can lend, must be administered speedily; every minute is of consequence; and if the disease be not stopped, the patient will sink."—"Here is no need for evacuation of any kind; recourse must be immediately had to medical assistance; the part affected should be frequently fomented with hot spirituous fomentations; *large and deep incisions* should be made into the diseased part, and the applications made to it should be of the warmest, most antiseptic kind." Page 59.

These remarks were published above forty years since, and consequently, prior to all modern claims. When the above practice was carried into effect on Reeves,* I did not recollect this passage in Pott's works, which, with the preceding and following remarks therein, deserve the attentive perusal and adoption of all practitioners. We ought not hence to infer, that incisions should not be made in every case of erysipelas, but only in those desperate instances, which the common plan of treatment will not alleviate.

In my work I have also shown that shepherds, from time immemorial, have practised incisions in the disease called "*Udder ill*," which affects ewes' udders in the lambing season, and resembles erysipelas phlegmonodes. The original suggestion of this practice must not therefore be conceded to Mr. C. Hutchison, although his merits cannot be denied for successfully repeating it on the sailor in the Deal Naval Hospital. The advantages of incisions are threefold: 1st. The loss of blood locally. 2d. The removal of cutaneous tension. 3d. The escape of ill-conditioned fluids underneath. In reviving an old and severe practice, care ought to be taken in not generalising it too commonly in cases which would do well without it.

A discussion also arose whether the length or number of incisions would be preferable. Truth never lies in extremes. It is not wonderful that two patients should have died after incisions, the one from hæmorrhage, and the other from the shock communicated to the nervous system; if the incisions were fourteen inches in length, as stated in The Lancet, such a cut would be characteristic of boldness, but not of safe surgery. That length can never be required for the cure of erysipelas.

I intended to have accompanied this communication with the recital of some cases of erysipelas, which have lately occurred in my own practice, but my time shortens, and other occupations press on me, whilst this paper lengthens, so that I shall be obliged to postpone for the present some additional facts, intended as a commentary upon this subject.

Before I conclude, I ought to state my respect for the attainments and talents of Mr. Lawrence, and my unwillingness to oppose his views and doctrines from any other motive than that of checking an evil likely to emanate from his highly influential example. With many thanks to yourself,

I remain, Sir,
Your obedient humble servant,
John Butter.

Plymouth, Dec. 3, 1827.

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* See Irritative Fever, pp. 112-228.

† Pott's Surgery, vol. iii. p. 58. Anno 1783.

* See Irritative Fever, p. 101.

ST. GEORGE'S HOSPITAL.

CASE OF POISONING BY OXALIC ACID.—VENESECTION.—INFLAMMATION OF THE BRAIN.

W. K., a muscular man, 21 years of age, was brought into this Hospital on Tuesday morning, the 15th of November, at seven o'clock; having taken, as it was said, an ounce of oxalic acid: he was placed under the care of Dr. Hewett. Previously to his admission he had vomited frequently, and had brought up a quantity of blood; the stomach-pump, however, was used by the apothecary, and the stomach was completely emptied of its contents; warm water was first injected, and afterwards a solution of the carbonate of magnesia. The patient was then put to bed, complaining of great pain in his stomach, and was ordered to take half a drachm of the carbonate and one drachm of the sulphate of magnesia, with an ounce and a half of almond mixture every three hours.

14. The patient has passed a restless night, complains of great pain about the stomach, and tenderness on pressure; he has vomited several times, the pulse is 110 and sharp, tongue white. Sixteen ounces of blood ordered to be drawn from the arm, and the mixture to be continued; soon after the blood-letting, the arm, above the elbow, became swollen and exceedingly tender. In the evening fourteen leeches were applied to it, and after the bleeding had ceased, cold lotion was kept constantly employed.

15. The man has passed a bad night, the pulse is 120 and wiry, the tongue is white and dry, the bowels have been opened, and some blood was passed with the stools. He complains of violent pain in his head, is very thirsty, lies upon his back, with his knees drawn up very high; the abdomen is exquisitely tender. Sixteen ounces of blood were taken from the left arm, and he was ordered to continue the mixture. The right arm is much swollen, and is very tender: cold lotion to be continued.

16. The pain in the abdomen is something better; the tongue is white, the skin very hot, the respiration is difficult; the pulse is 110 and hard; the man has a desire to cough, but cannot for the pain in his side; the bowels are open; he was again bled, to the amount of 12 ounces; and twelve leeches were applied to the abdomen; the blood drawn yesterday was both buffed and cupped; his arm continues exceedingly tender, but is not quite so much swollen.

17. The man has had rather a better night; the skin is less hot, the pulse is 98, and softer; the pain in the abdomen is not so great, nor has he so much pain in his side as yesterday; he has a slight cough; he was ordered to take an ounce and a half of the saline mixture, with half a drachm of the ipecacuanha wine every four hours.

18, 19. The patient remains in the same condition, but has had several slight rigors; the arm continues inflamed.

20. This morning he is much worse; has been very restless, and complains very much of his head; the pulse is quick and tremulous.

In the afternoon he became delirious, and soon after expired.

Post Mortem Examination.

Head.—The only morbid appearances observable here, were, that the brain, when sliced, presented more bloody points than natural, and some turbid serum was found in each lateral ventricle, and also at the base of the brain.

Thorax.—The right pleura pulmonalis was covered with a layer of coagulable lymph, which was easily detached, and there were no adhesions of the pleuræ. The outer surface of the lungs of the left side was healthy in appearance. Both the lungs when cut into were found to be loaded with blood.

Abdomen.—There were slight evidences of inflammation having existed in the peritonæum generally: the mucous membrane of the stomach and duodenum was more vascular than natural; and this appearance was observed in a less degree throughout the whole alimentary canal.

The cephalic vein was traced from the bend of the elbow upwards, and was found to be inflamed to a considerable extent; at about five inches from the bend of the elbow there was a small quantity of what Dr. Hewett styles in his case-book—"*Laudable Pus.*"

CASE OF STRANGULATED SCROTAL HERNIA, WITH THE OPERATION BY MR. ROSE.

Mr. Rose performed the operation for strangulated scrotal hernia, on Wednesday evening, the 5th instant, under the following circumstances:

The patient, a muscular man, 22 years of age, was brought into the Hospital on Tuesday evening with a swelling in the left side of the scrotum, and the account which he then gave was, that whilst in the act of wrestling a few hours previously, he found something give way, and he had much pain in the left groin: the bowels had been open on the day previously. Soon after his admission he was put into the warm bath and the taxis was applied, but without success: there was not at this time, as we understand, any tenderness of the abdomen or urgency of symptoms, and therefore he was placed in bed and allowed to remain for the night, without any further means being adopted. At noon, the next day, we found that the man had been removed from the warm bath in which he had been again placed by direction of the house surgeon, who now bled him from the arm to syncope,* and again had recourse to the taxis without effect. The tumour was of the size of a small melon, somewhat tender on pressure; the integuments not discoloured. The man had vomitted once or twice in the night, and the abdomen was now slightly tender: there was no hiccup or anxiety of countenance; the pulse was quick. On further questioning him we learned, that until within the last twelvemonths he had worn a truss from his infancy, having always had a slight irreducible swelling in the left groin; but it had never been so large, or "come down," as on the present occasion. Mr. Rose, who now saw the patient, promptly decided upon the propriety of the operation, which was accordingly performed, by making a longitudinal incision through the integuments almost the whole length of the tumour, then cautiously dividing the fasciæ, and opening the sac, exposed a large portion of omentum, and under it a knuckle of intestine of a dark chocolate colour.

The stricture, which appeared to be situated at a short distance above the external abdominal ring, was readily divided upon the finger by means of a bistoury; the gut was then easily returned, but the omentum being found coherent to the sac (by adhesion of long standing) was allowed to remain. (This adherent portion of omentum probably constituted the irreducible swelling, which had existed previously to the descent of the gut.) The edges of the wound were approximated by means of three sutures and strips of adhesive plaster, the man placed in bed; to take one drachm of sulphate of magnesia in an ounce and a half of peppermint water, every three hours.

On the following day, the pulse being quick and hard, and the abdomen tender on pressure, sixteen ounces of blood were taken from the arm, and twenty-five leeches were applied to the abdomen; he was directed to continue the mixture. The bowels had been relieved twice or thrice during the night. From this period to the 10th of December nothing material had transpired; the venesection effectually subdued the febrile excitement, and the patient was in every respect doing well.

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* He bled the man in a *recumbent* position, by way of favouring syncope!! What a pity that so much light should be hidden under a BUSHELL!

GUY'S HOSPITAL.

OPERATION OF TYING THE SUBCLAVIAN ARTERY, BY MR. BRANSBY COOPER.

THIS operation was performed on Tuesday, Dec. 4th, by Mr. Bransby Cooper, on a middle-aged man, affected with axillary aneurism. There was a most crowded assemblage collected to witness this *grand spectacle*:—the operation was certainly effected in a masterly style. Although we cordially concur with the adage *sat cito, si sit bene*, yet where celerity can be combined with safety, as it was in the present operation, it must command admiration. The ligature was passed round the artery in somewhat less than a quarter of an hour: the wound dressed, and the patient removed from the theatre in about twenty minutes. One silk ligature, only, was used and applied by means of the common aneurismal needle, without the slightest difficulty: the pulsation of the tumour immediately ceased on tying the artery.

We shall carefully notice the progress and result of this case.

AMPUTATION OF THE MAMMA.

Mr. B. Cooper performed this operation in consequence of scirrhous disease, affecting the breast of a female, 43 years of age. Nearly the whole mass of the gland was affected, and it was removed by means of two oblique elliptical incisions through the integuments, and subsequent dissecting away, of the diseased mass.

TO CORRESPONDENTS.

Z. is in error.

The complaints of THE MEDICAL STUDENT, shall be noticed.

The Letter of Dr. BARRY, relative to Mrs. Denmark's case, has been received.

Other Correspondents must stand over.

We are to have a *legal* consultation with Mr. GUTHRRY, in the Court of Common Pleas, Westminster, next TUESDAY; on which occasion, the operation of DEPRESSION will be performed on the "modest author," by Mr. BROUGHAM.

THE LANCET.

Vol. I.] LONDON, SATURDAY, DECEMBER 22. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY
DELIVERED AT GUY'S HOSPITAL BY
DR. JAMES BLUNDELL.

Lecture XI.

Birth and Management of the Secundines.

We now proceed, Gentlemen, to speak of the birth and management of the Secundines—the Placenta and Membranes, in labours on the whole natural.

If the womb chances to be more than usually active after the birth of the child, it sometimes very promptly expels the placenta. More generally, however, after the child is come into the world, the womb reposes itself for fifteen or twenty minutes, after which contractions occur, and sometimes, though rarely, as I have myself seen, the placenta is completely expelled from the vagina; sometimes, and more frequently, it is pushed into the upper part of the vagina, or in part expelled from the uterus, so that it lies partially in both cavities; and sometimes it may be pushed down to the mouth of the uterus, so that at the os uteri the insertion of the chord may be easily felt. This expulsion of the placenta, more or less complete, is usually attended with a discharge of blood, of varying quantity, seldom, however, exceeding a few ounces, a gurgling noise perhaps indicating when the blood comes away; and this I rather mention, in order that, being on your guard, you may be prepared for the accident, not feeling needlessly alarmed when the hæmorrhage occurs.

These contractions of the uterus, which, occuring after the birth of the child, expel the placenta, are of no small importance, and the effects which are produced by them may therefore be worth our consideration; and first we may observe, that where the uterus contracts, in consequence of the diminution of the extent of its surface internally, detachment of the placenta is produced, in the same manner as under this contraction of my hand my handkerchief now separates from the fingers which contain it—the palmar surface diminishing, while that of the handkerchief remains unchanged. Again, in contracting, the uterus does not merely detach itself from the placentar surface, but as I have told you already, it more or less completely expels the organ, pushing it beyond the os externum or into the vagina, or into the mouth of the uterus, or into that part of the cervix uteri, where it may be felt lying behind the disc formed by its mouth. To these two effects of uterine contraction a third may be added, scarcely less important—I mean the security which it gives against the risk of inversion. If the womb is in an uncontracted state, its cavity large, its parietes thin, its substance soft and flexible, and you, laying hold of the placenta, draw down without previous reflection, there is a great risk lest the uterus, to use an expressive illustration, should be turned inside out, as I now invert this pocket. But if the womb, as it ought to be when the placenta is taken away, is contracted in every direction—its cavity small, its sides thick, its substance hard—under these circumstances an inversion is not only improbable, but perhaps impossible. So that it seems among the advantages arising from the contraction of the uterus we may enumerate, not merely the detachment of the placenta and the exclusion of the placenta, but the security against uterine inversion, which this contraction best affords. A fourth advantage, not to be overlooked, derivable from uterine contraction is, that it diminishes the risk of hæmorrhagia from the womb. Into the placenta there are a number of blood-vessels shooting; those vessels, arteries, and veins are of very large capacity. Now why is it, that when you take away the placenta and lay all these vessels open, you have not always a large eruption of blood? Much may, perhaps, be ascribed to the concretions which form in the mouths of these vessels, and still more to the uterine contractions; for where the womb contracts, its mascular fibre contracts, and when the fibre contracts, the vessels are contracted also; for the vessels ramifying among the fibres, these fibres when contracted around them, like so many ligatures, close the branches, venous and arterial. I will not assert, for this is unproved, that if the placenta be withdrawn while the womb is in the uncontracted state, hæmorrhage must always occur. Now and then, where the circulation is low and the vascular orifices are closed by sanguineous concretions, *abundant* hæmorrhages may *not* be produced; but certain it is, that unless the womb be thoroughly contracted, there is always a risk of bleeding; a risk which, as explained already, is very materially diminished by the contraction of the muscular fibres. For various reasons, then, it is clearly very desirable, that after the birth of the child the full contraction of the uterus should be obtained, for this contraction it is which detaches the placenta, expels the placenta, secures the womb against the risk of inversion, and the vessels against the more formidable and fatal eruptions of the blood.

If you examine the womb, as ought to be your custom, immediately after delivery; there are four very different conditions in which it may be felt; sometimes it is large and lax, and nearly as big as the adult head; and sometimes it is small and soft, not bigger than the head of a full-grown fœtus, and yielding like the breast under the touch; sometimes, in a third condition, very different from the preceding, you find it small and rounded, and as hard as a piece of cartilage, or as the head of the fœtus; and sometimes, again, you find it in a fourth and intermediate state, very hard at one moment, and very relaxed at another. In all these four conditions, which it may not be amiss to recapitulate, the womb may be found after delivery; large and soft, small and soft, contracted, rounded, and very hard, or contracted and rounded with occasional induration, and occasional pultification.

Those tangible conditions of the uterus, are to be made out solely by examination above the symphysis pubis carefully instituted; and every scientific accoucheur ought to be able to determine with certainty, in what condition the organ lies. You will find, generally, on applying your hand above the symphysis pubis, feeling the uterus there, grasping it as felt through the abdominal coverings, that you may readily enough, especially when rounded and hard, determine the state in which it is. If, however, you find a difficulty in feeling the uterus, and no hæmorrhagic symptoms occur, you may wait; and, by-and-by perhaps, examining a second time above the symphysis pubis, when the womb is more contracted, rounder, and more indurated, you may feel it obviously. Should you, however, still seek the womb in vain, though desirous to ascertain what may be its condition, you may then pass two fingers, the first and second of the left hand, to the mouth of the uterus, an operation easily accomplished, as the passages have been laid open by the child; and thus getting a bearing on the uterine mouth, you may throw the womb forward, and then, undoubtedly, the hand being applied externally through the coverings, and above the symphysis pubis, the womb may be felt; for, in fact, it is thrown by the action of one hand into the hollow of the other.

Of these four conditions of the womb after delivery, remember there is one only which is to be looked upon as perfectly healthy, and altogether desirable. The woman may do well under the three other states of the uterus, but this alone is secure; and I here allude to that condition of the uterus already mentioned, in which, like the head of the child, it feels contracted, round, and permanently indurated, for it is this contraction of the muscular fibres which secures against the probable risk of flooding or inversion. If the womb be large and pulpy—if, though contracted, it feel soft and yielding—if, lastly, alternating its condition, it seems at one time soft, and at another indurated;—although the woman may be perfectly well, and although, no dangerous symptoms appearing, very active practice may not be required; yet you are to look upon the condition of the patient as at best uncertain, till that permanent rounded contraction, assimilating the uterus to the head of the full-grown fœtus, be observed.

You will ask me, perhaps, whether there are any gentle means which you may employ, in order to secure a contraction of the womb when torpid? Something may be done by the administration of a cordial, as yesterday recommended. A table-spoonful of brandy, for example, with two or three table-spoonfuls of water, to be given immediately after the birth of the child. Some advantage is obtained, by suffering the uterus to expel the child by its own efforts, in the way recommended. After the birth of the head, as a meddlesome midwifery is bad, do not, seizing the head, drag forth the body of the child, but rather leave the expulsion of it to the natural efforts; for the womb being stimulated in this manner to more complete contraction, you will find the exclusion of the placenta will become more easily accomplished.

It helps, moreover, this contraction of the womb to lay the hand above the symphysis pubis, to feel the uterus, to grasp it in the hand, but not so violently as to occasion pain, and to roll the hand about upon the uterus as I now show you; this rolling of the hand, and this irritation of the uterus appearing sometimes to operate as a useful stimulus to the womb. So that by the application of these simple means, which can do no injury, even if they produce no benefit, by the compression of the uterus—by the rolling of the hand—by allowing the child to be expelled by the unaided efforts of the uterus; the uterine fibre may be stimulated, and there is resson to believe that the susceptibility of the uterus may be augmented by the administration of some cordial, as soon as the child makes its appearance in the world.

Where the placenta is rudely and injudiciously torn away by the hand of the accoucheur, the worst consequences may be expected to ensue. Floodings, tremendous lacerations, inversions of the uterus, like those which now stand on the table before you—such are the effects of obstetric violence—ferocious and atrocious obstetric violence; that insatiate and gory Moloch, before whose bloody shrine so many thousands have been sacrfiiced, to be succeeded, in future years, by still more numerous victims. Observing these awful consequences resulting from the artificial separation of the placenta, Ruysch first, and afterwards Denman and Hunter, recommended, that in all cases after the birth of the child, the expulsion of the placenta, like that of the fœtus, should be committted to the natural powers; for they added, "the same natural powers which are adequate to expel the child, are surely adequate to expel the placenta also." And there is no doubt, that if our women, *ferino more*, unaided by art, were committed to their natural powers altogether, like the females of barbarous hordes, in the great majority of cases the placenta would come away; but experience is said to have shown, and from the decision of experience there is no appeal, that in some cases, when the placenta is left to be expelled by the natural efforts, fatal consequences occur. Many cases are said to have occurred, in which floodings have taken place, and some in which the placenta, long retained, could not afterwards be abstracted; and where, remaining unexpelled for two or three days, under the procrastinated use of means to extricate it from the uterus, the greatest injury has been inflicted; so that the practice, twice brought to trial, once in Holland, under the authority of Ruysch, and once in this country, by the advice of Dr. Hunter and Denman, has now been laid aside, probably not without good reason. It seems, therefore, to be pretty well agreed, among those who are competent to form an opinion, that though we are not to be injudiciously and rudely tearing at the placenta, it is necessary, nevertheless, that some artificial assistance should be given; and the greatest and nicest, perhaps the most important of all questions, in the management of a natural labour, is the discrimination of the moment at which this assistance ought to be interposed. Shall we interfere immediately? Shall we wait for an hour? or shall we delay still longer, before the placenta is brought away?

By different practitioners, different rules have been prescribed; and as they have their excellencies as well as their defects, I shall now briefly lay them before you. Some there are, and I think Dr. Hunter was of the number, who recommend that we should take our rule from *time*, and this has the advantage of being a rule of easy and exact application, for the chronometer becomes our oracle. Wait (they say) till four hours after the birth of the child. If the placenta comes away before the four hours have elapsed, it is well; if, on the other hand, it still remains in the cavity of the uterus, manual interference may become necessary. There are others who judge by the pains, without any regard to the time at which the woman has been delivered: pains, they say, accompany the contractions; the contractions expel the placenta; the pains therefore indicate the time at which artificial assistance should be interposed. These practitioners, therefore, after delivery, seat themselves at the bed side of the patient, refraining, for one or two hours, from manual interference, if no pains occur, but as soon as the pains commence, following in the tract of Nature, our best instructress, they lay hold of the umbilical chord, and endeavour to bring the placenta away. Nor is this rule to be despised. There are other practitioners who follow a very different rule also, not without its excellence: determining whether they shall or not assist the birth of the placenta, by the situation of the viscus, without regard to the pains, and without regard to the time that has elapsed since the delivery. If, on examination, they feel the placenta lying in the upper part of the vagina, and through the os uteri; and more especially, if they feel the union of the chord with the placenta, they do not hesitate to remove it; while, on the other hand, if the umbilical chord ascend high into the uterus, and no part of the placenta can be felt, they wait. Now, of the three rules here enumerated, on the whole, I think the last is to be preferred. In ordinary cases, you can never err in abstracting the placenta, when lying, in a great measure, out of the uterus, while there is always risk in the removal of this organ, when it lies in the fundus of the uterus; and not only a risk, but a difficulty. There are some, lastly, who, without regard to the situation of the placenta, without regard to the pains, without regard to the time that has elapsed since the delivery, determine whether they will assist or not the birth of the placenta, by the feel and condition of the uterus. And though I am not solely guided by this indication, with me it has a great influence. Examining the uterus above the symphysis, and finding it is large and soft, or even contracted, yet pulpy, they consider that the contraction of the womb, so much to be desired, has not as yet occurred. If, on the other hand, feeling the uterus, they find it forming the much wished-for mass, globose and indurated; and not only so, but that, on keeping the hand there for five or ten minutes, the induration remains permanent, they consider that a thorough contraction has taken place, and that the placenta may be removed in safety, whether it lie forth into the vagina wholly or in part. Not, however, to dwell too much on single indications to those who hear me this morning, I would recommend a practice, forming itself under the influences of all these considerations—a rule of composite order.

Before you even think of removing the placenta, it becomes your duty to ascertain whether another child be lodging in the uterus; for, as a general practice, it is always improper to remove the secundines of former children until those remaining in the uterus have been expelled. Rupture of the funis, suffocation of the unborn fœtus, in consequence of the premature abstraction of a placenta, perhaps common to both, not to mention those floodings which we shall hereafter contemplate, must in some cases ensue, where this caution is unwisely neglected; and you ought therefore to investigate this point, as before recommended, with the nicest care, before the removal of the placenta be attempted. Again, in order to guard yourselves against a grand error, which you may incur in early practice, I mean the removal of the placenta too soon, when the uterus is yet uncontracted, I would recommend you, by all means, unless there be hæmorrhage more than ordinary, to wait for half an hour before you operate, for at the end of this time, you will generally find that the womb has reposed itself, that its fibres are contracted, and that the placenta may be safely taken away. Before the placenta is removed, I would further advise you to examine with nicety what is the condition of the uterus; for as observed already, the scientific accoucheur will always be able to decide which of the four states before mentioned, is the condition of the uterus; and if you find that the womb is contracted, globose, and indurated, you may extract the secundines with more confidence; but no flooding forbidding, you had better delay the delivery even beyond the hour when the womb, whether contracted or capacious, is found to be soft and pulpy.

There is one other point which should be investigated before you remove the placenta, and that is the situation of this organ. I will not venture to assert, that you may never remove the placenta after delivery, where the insertion of the funis cannot be distinguished, and when the body of the organ cannot be felt lying forth partially or wholly in the cavity of the vagina; but as a general practice, it is not good to remove this viscus, unless these preparatory conditions exist. If you find the placenta lying so low that you may lay hold of its body, the half hour being expired, you may remove with promptitude; but perhaps you had better delay the removal, even though the glass be run out, provided the placenta be still lying beyond the touch of the finger.

Here then are the four cautionary points which I wish you to remember, though fearful that they may be left behind you, among the benches of this theatre; if indeed, in some aqueous memories, the traces are not already effaced. Before you abstract the placenta, ascertain always that there is no other child in the uterus. Wait for half an hour after the birth of the fœtus, no particular symptom forbidding; satisfy yourselves that the womb is permanently contracted; remembering that it is always desirable that you may feel the insertion of the funis, or the body of the placenta, before the viscus is taken away. I could wish that these cautions might be ever before the mind; importunately and uncalled, presenting themselves to the recollection, like the captivating notes of some favourite melody; or to speak a language more generally intelligible, the no less captivating traits of some favourite face.

If agreeably to these rules you interfere in the extraction of the placenta at the proper moment, you will generally find that the removal may be easily accomplished as follows:—The woman placed on her left side, lay hold of the umbilical chord with your right hand, and the substance of the placenta lying forth, secure a bearing on it with the fingers of the left; having secured your hold, if there are pains, by all means wait for those, and co-operate; for I have found in slighter difficulties, that in removing the placenta, the pains assisted effectually, and perhaps that the placenta could not have been abstracted without them. If pains be wanting, I advise you to take advantage of the expiratory descent; the epithet is not, perhaps, inappropriate, for often with every expiration, we find the chord descending a little, the placenta being by degrees pushed forward, so that if at each point of descent you prevent its retiring, by little and little the burden is brought away. Perhaps in many cases it may matter little in what direction you pull, though a man of plain good sense, knowing as you do now, the axis of the pelvis, would wish to draw in a line, tending on the whole from the umbilicus to the coccyx. If you find there is a difficulty in abstracting the placenta, continually elevating your hold as the placenta advances, you should seize that part which is last emitted from the uterus, not continuing to grasp that portion of placenta which first escaped, lest you tear it away. Do not *haul* out the placenta; do not jerk out the placenta; do not tear out the placenta, leaving, unobserved, one half of it in the cavity of the uterus. Do not lacerate and leave the membranes to form afterwards a receptacle for clots, or to alarm the patient by their unexpected appearance; *arte, non vi*, must as usual be your device; lead, coax, seduce. Well, then, in this gentle, cautious manner, substituting gentleness and skill for force and brutal violence, you remove at once the placenta and the membranes; and this accomplished, I recommend you by all means to close your practice with the three following cautions: and first, if there have been difficulty in abstracting the placenta, satisfy yourselves that *no inversion* of the womb has taken place; for practitioners have sometimes unconsciously inverted the uterus, leaving it in that condition, an accident which can never happen to you, provided you forbear to remove the placenta till the womb be contracted. You may, however, drowse sometimes at the bed side, as on these benches, and in these torpid and forgetful moments, carelessly abstracting the placenta, inversion may occur.—As, therefore, the neglect of this accident is of serious consequence in all cases, and especially if the secundines be withdrawn with difficulty, make it your rule to ascertain afterwards whether inversion have been produced. Of the characters marking inversion, we shall hereafter treat more largely, remarking, at present, that if in its natural position the womb may be felt in the usual situation above the symphysis; while it is wanting at this part, and forming, like the child's head, a tumour in the vagina, when inversion exists.

A second point to which I wish you also to give your attention is, that of ascertaining that you have got the whole of the placenta from the uterus, and this not by thrusting your fingers into the uterine cavity, a practice to which I must remain decidedly hostile, but by taking the placenta and laying it out upon a napkin, examining both surfaces, and raising the membranes so as to ascertain whether, as in this preparation, the placenta and the annexed involucra be complete. If any part be wanting, the cause of this deficiency should be ascertained; if the whole be there, then of course there is none remaining latent in the uterus. Tenacious of this caution, you will not, like some of the *omnipotent* practitioners, leave, without knowing it, one quarter or one-half of the placenta in the uterus, the patient, in some rarer cases, sinking, or becoming the subject of vomiting, flooding, and alarming pains, with, perhaps, the expulsion of the mass nine or ten days after the delivery was supposed to have been completed. Adhere, therefore, to this practice, so simple, so easy, and so beneficial to the patient, and when you have abstracted the secundines, satisfy yourself thoroughly that the whole mass, fleshy and membranous, is away.

There is one other caution, a third point, never to be forgotten, I mean the risk there is of bleeding, both before and after, but especially after the abstraction of the placenta. Those bleedings, as some melancholy cases prove, may be incautiously overlooked by the accoucheur, and really not always with much blame. Though often more alarming than dangerous, these bleedings are never to be despised; to two women, dead from these floodings, I have been called in one night. To you, however, provided you adhere to the rule of interfering at the proper moment, fatal hæmorrhages, connected with the birth of the placenta, will rarely if ever occur, for they are highly improbable, if the womb be well contracted. When these bleedings are external they can scarcely be overlooked; the patient feels, and perhaps the practitioner hears, the flooding as the blood falls upon the floor. But let it be remembered, that you may have internal hæmorrhages,—all the blood collecting in the cavity of the uterus; known by an alarming tendency to deliquium, a womb that is bulky, and a copious eruption of the blood by gushes when the uterus is compressed. Remember too, that when the patient reposes on a large bed, in the centre of that bed a pool of blood may form without your being aware of it; if, therefore, faintness occur, if the body become cold, and the strength collapse, and the respiration be small or deep, and spasmodic, examine the uterus, and if you find no accumulation there inspect the hollow of the bed. Here, then, are three cautions which I would wish to impress indelibly on your minds and my own, their recapitulation being justified by their importance. After the placenta has been removed, satisfy yourself that the whole has been abstracted; ascertain, in the more difficult cases especially, that inversion has not been occasioned; and on all occasions be on your guard against those floodings, external, internal, or on the bed, often attended with little danger if the patient be well managed, but which, if neglected, will sometimes very suddenly and unexpectedly destroy; and let me add, in terminating this part of our studies this morning, that although floodings may now and then occur long after delivery, yet they are most to be apprehended within a few minutes after the birth of the child, not unfrequently too making their unwelcome attack when the accoucheur is performing his ablutions and about to retire.

My remarks on this topic, tedious perhaps, yet necessary, I may close, by pointing out to you, in a summary manner, the errors which, in managing the placenta, you are liable to incur.

To commence then: I am afraid that some one here present, notwithstanding the cautions of the morning, will hereafter heedlessly remove the placenta when there is another fœtus in the uterus. He smiles—he bows—he retires—another child is born;—which of you all means to signalize himself by this dangerous folly?

I am afraid, again, that some one here present, will be forgetting that, in ordinary cases, when the placenta is taken away, he ought to ascertain whether the uterus be globose and indurated. Watch, therefore, and be careful that you never bring away the placenta without first examining the condition of the uterus. With urgent earnestness, I recommend this caution. Lay your hand above the symphysis pubis, get into the habit of invariably doing this in all cases; till this is accomplished, your duty to the patient has not been discharged.

I hope that no one present will needlessly thrust his hand into the uterus, yet I have my misgivings. I hope, after all I have said of the tearing, and lacerating, and sloughing of these parts, you will never *needlessly* have recourse to this barbaric practice. Some of my obstetric friends, and whose talents I esteem, fall into this error; they grate my ears, by boasting how frequently they have carried the hand into the uterus, and with what facility the placenta has been removed: that this operation may be easily effected, I have no doubt: that it is sometimes necessary, I shall hereafter show; but depend upon it, if you do carry your hand into the uterus on every occasion to get away the placenta, some woman will die at last, and die the victim of your mismanagement; at this moment, perhaps, some amiable but ill-fated creature blooms the light and life of her admiring circle, who must hereafter fall an untimely sacrifice to some cruel and ruthless arm now drowsily crossed in this theatre—which of you is the owner of this atrocious member? But I forbear to declaim. About three years ago, from the father of one of my pupils, I received an anonymous communication, to which his name would have been a graceful addition, complaining that, under my tuition, his son had acquired the dangerous habit of needlessly thrusting his hand up into the uterus. Now, Gentlemen, I appeal to you all, as to your predecessors on these benches, whether it was in this school that he might learn to have recourse to these pragmatic and most dangerous practices?

The tearing of the placenta, and leaving in the womb a portion unobserved, is another error to which you are exposed; especially if, instead of *seducing*, you *haul* forth the placenta. If, in every case, you, as it were, seducingly allure away the placenta, the accident of tearing it can scarcely ever occur; but if you proceed with negligence and violence, large portions of the placenta may remain within the uterus, as I have myself seen.

To suffer the patient to flood unperceived, whether into the bed or the uterus, is another error against which you ought to guard; the majority of these cases ultimately do well, it is true, but I wish you to be prepared for the worst. You may make merry with this caution in ninety-nine cases, but perhaps you will look a little grave upon the hundredth.

The inverting of the uterus, unconsciously at the time, and without observing the accident till hours afterwards, is another error to be deprecated. If the womb be inverted, upon observing it immediately, you may soon replace it; but if it is not known within a short space, reduction becomes impossible. I suppose it would be difficult to find in the annals of midwifery, one case where a womb has been inverted, and remained so for four and twenty hours, reduction being afterwards accomplished.

But to illustrate by preparation: The specimen I now show you, Gentlemen, is of the inverted womb, thin, flexible, and of easy inversion, especially when paralytic, and softened from the loss of blood; in this condition of the uterus, the placenta is not to be taken away.

Here is a specimen of the contracted uterus; puerperal, like the former, but mark the difference. In the former preparation the womb is capacious, its textures thin, its substance flexible; but here, where the womb is contracted, the cavity is small, the textures thickened, the substance indurated, the uterus hard as a bit of cartilage. Of the former uterus, inversion would be easy, but no inversion could occur here. You will observe, too, that where the womb is contracted in this manner, the placenta is detached from the surface, and it must be in great measure expelled from its cavity; and this is the condition of the uterus when the placenta may be safely removed.

Here is a preparation of the uterus in the uncontracted state, and looking on the inner surface to which the placenta cohered, you find there is a number of large unclosed vascular orifices, yawning, as it were, destruction on the patient. Now this preparation shows the condition in which the vessels are, if you tear away the placenta before the womb is contracted, exhibiting the formidable openings at which the effusions of blood occur. But in the contracted preparation, if you look at the blood-vessels, you will find them all closed by the abbreviation of the surrounding fibre, as by so many ligatures, and this is the best preservation against hæmorrhagia; it is *Nature's tourniquet*, her system of living ligatures, which, *as yet*, no art has imitated. You see, then, that it is not without good reason that I am so anxious, before you abstract the placenta, that you should secure the contraction of the womb.

The next preparation exhibited, demonstrates the placenta such as it appears when properly abstracted; in the placenta there is a good deal of variety, but laying it on the napkin, and examining it for yourselves, you will find, that if healthy, it always essentially resembles the specimen I here show you.

Do not needlessly thrust the hand into the uterus; that is the voice that issues from this preparation:—he that has ears to hear, let him hear it.

Do not needlessly thrust the hands into the vagina; is the voice that issues from this preparation:—he that has ears to hear, let him hear it.

Do not needlessly pass the hand into the genital fissure; is the voice that issues from this preparation:—he that has ears to hear, let him hear it. Ah! that violence of an ignorant and savage hand! after examining these preparations, tell me, is it too much to assert, that in obstetrics, a thrust of the hand is more dreadful than a thrust of the bayonet? Could the field of Waterloo exhibit injuries more dreadful than these?

Such then are the general rules which I would prescribe for the management of that most important stage of parturition; I mean the birth of the secundines—the delivery, as, perhaps, by way of eminence, it has been denominated by our Gallic neighbours. When, Gentlemen, from large experience and much reflection, you have of yourselves formed better rules of guidance; by all means, but not till then, let these now given be laid aside as superannuated and defective. In the lessons of the morning, nothing can be more abhorrent from my wishes, than to exercise over the mind any influence which does not emanate from truth and reason; be that far from both you and me! for there is not, perhaps, any intellectual habitude more certainly preventive of our progress in solid knowledge, than that which leads a man indolently to neglect the exercise of his own observation and reason, to adopt servilely the opinion of those who are gone before him. Observe for yourselves—think for yourselves. He is surely less than the least of all philosophers, one who is not worthy to be called a philosopher, who does not often inculcate these maxims. Think for yourselves, then; not arrogantly; not inconsiderately; not (if you please) invading those regions of thought which lie beyond the sphere of human understanding; but on topics within your reach, with observation and reflection, deep and broad, still think for yourselves; never burying in indolence that inestimable gift of nature, so much insulted and disparaged,—Reason; *lux lumenque vitæ, divinæ particula auræ*;—Reason, the fair mother of philosophy, and the brightest and noblest inheritance of the human species.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

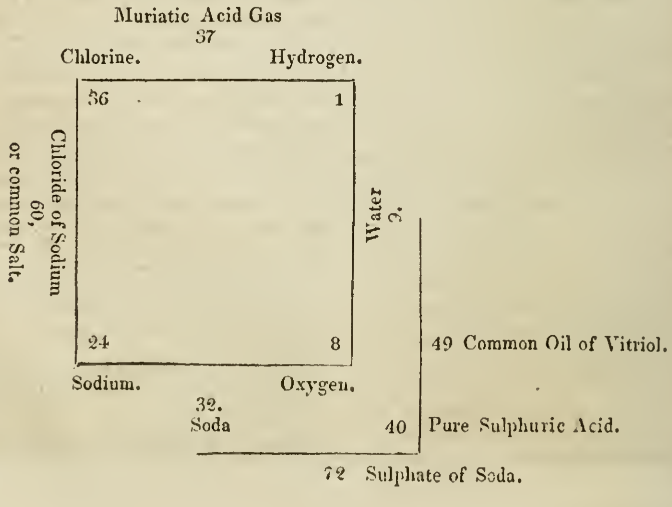
LECTURE XVII.

On Muriatic Acid, Hydriodic Acid, and Nitrous Oxide.

Gentlemen,—You will recollect, that at the close of the last lecture, I showed you that muriatic acid was composed of equal volumes of chlorine and hydrogen, by placing them in a glass vessel, and igniting them by the electric spark. We may also show you the same fact analytically, by depriving muriatic acid of its chlorine by means of potassium, and several of the metals. The experiment was then made with potassium; the acid was decomposed, a chloride of potash formed, and the hydrogen evolved. The nature of muriatic acid gas, then, is shown by synthesis and analysis, and we arrive at the conclusion, that it is composed of thirty-six parts by weight of chlorine, and one of hydrogen, the equivalents of the elements, and that thirty-seven is the equivalent number of the gas.

Having thus established the nature of the gas, we will next state its specific gravity. One hundred cubic inches weigh $39\frac{1}{100}$ grains; compared to hydrogen, it is as 18.5, and to air, as 1.2851, so that it has the mean density of its component parts. Muriatic acid is much used in the arts, and therefore is a considerable article of commerce; but for the purposes of experiment, we do not use such as is to be obtained in the shops, but manufacture it by introducing a small quantity of sal ammoniac into a retort, and pouring some sulphuric acid upon it, a gas is discharged, which is muriatic acid gas, and sulphate of ammonia remains in the retort. As the gas is very soluble in water, it is very necessary to collect it over mercury; and as the gas is a little heavier than atmospheric air, you might receive it without any close apparatus, by placing the mouth of the retort over an open vessel. Mr. Faraday obtained it in a liquid form, by submitting it to a pressure of about forty atmospheres, and this experiment has shown that it is not a permanent elastic body, as was formerly supposed.

Its properties are easily recognised, it fumes when exposed to the air, it is intensely sour, it reddens vegetable colours, it is fatal to animal life, it is greedily absorbed by water, and it extinguishes the flame of a common taper; because, as you have seen, chlorine burns in it, and chlorine is not a supporter of the combustion of the taper. Its extreme solubility by water is best shown, by placing a small tube, containing a small quantity of water, in the vessel in which the gas has been received; the water becomes intensely sour, and it is, in fact, then the ordinary muriatic acid of commerce. You see that a few drops of water have taken up all the gas in the vessel, the mercury over which it was collected, mounting nearly to the top of the tube. There are two processes resorted to, to obtain the acid; the one when it is desirable to have it pure, and the other for common purposes. Here is sal ammoniac and sulphuric acid put into a retort which is connected with a Woulfe's apparatus, in each of the vessels belonging to which there is water; the water in the first vessel becomes saturated with the gas, and then the water in the second vessel, and so on in succession. Now the acid thus obtained, is sufficient for all the common purposes for which the muriatic acid is employed. Common salt is also used, and sulphuric acid and water are formed upon it, and the muriatic gas and the water distil over together, in the form of liquid muriatic acid. This is the process directed in the present Pharmacopœia. Now the explanation of the changes which take place in this process is very easy, as far as the decomposition of the sal ammoniac is concerned; but with the distillation of the acid from the common salt, the case is different. The common salt contains no muriatic acid, but chlorine; so that the salt furnishes the chlorine, and the water the hydrogen, and thus the muriatic acid is formed; whilst the sodium of the salt attracts the oxygen of the water and forms soda, which, entering into combination with the sulphuric acid employed, produces a sulphate of soda, a salt first discovered by Glauber, and called by him *sal mirabile*. Here is a tabular representation of the changes which take place in this process, and there is no chemical change which may not be represented in the same way. Such tables are resorted to for correcting the great processes of manufacture, and, in many instances, have proved very useful. Now this table shows you what takes place when the common salt and oil of vitriol are mixed together: the substances are represented by their respective numbers.



Thus you see that the salt, the representative number of which is 60, resolves itself into chlorine, represented by its number 56, and sodium, it being a chloride of soda; the water, you see, which was contained in the oil of vitriol, or purposely added if pure acid were employed, is decomposed, and its hydrogen 1. unites with the 36 of chlorine to form muriatic acid gas, the equivalent of which is 37. The sodium of the salt, on the other hand, unites with the oxygen of the water and forms soda, which, lastly, uniting with the sulphuric acid, forms sulphate of soda, the equivalent number of which is 72.

Pure muriatic acid is colourless, but it acquires, by keeping, a pale yellow, and in commerce it is found contaminated with various substances, especially iron. With regard to the quantity of acid that a bulk of water is capable of taking up, we may state that 480 volumes of gas are taken up by one volume of water; so that under mean pressure, at a temperature of about 45°, liquid muriatic acid of specific gravity of 1.21, would contain in 100 parts, say 100 grains 42.43 of muriatic acid gas, so that the quality of the acid may be ascertained by its saturating powers, and by its specific gravity.

Now, *hydrogen* and *iodine* combine, and produce *hydriodic acid*, which is a much more correct term than muriatic acid is for the union of hydrogen and chlorine; indeed, although we call it muriatic acid, the French always call it hydrochloric acid. Hydriodic acid may be obtained by various processes, but it may be best produced by placing phosphorus over moist iodine, the gas then comes over in a gaseous form, which must be collected over mercury. It is an unimportant substance in a chemical point of view, but inasmuch as it forms some medicinal compounds, it must be mentioned. It is very absorbable in water, and partly so in mercury, and is therefore difficult to obtain. It consists of one volume of iodine 125, and one volume of hydrogen, 1. forming hydriodic acid 126. It was for a long time mistaken for muriatic acid; it fumes on exposure to air, and smells like muriatic acid; 100 cubical inches weigh 133.43 grains, so that it is a very heavy gas; its specific gravity to air is 4.223, or to hydrogen as 63 to 1. It may be also obtained in a fluid form, by putting a solution of iodine into a solution of sulphuretted hydrogen, the sulphur is precipitated, and by filtering the liquor, the hydriodic acid may be separated. It boils at 260° when it has a specific gravity of 1.7; the purity of the gas may be easily determined by the action of mercury upon it; the gas gradually sinks into half its volume by absorption of the mercury. Its combinations in pharmacy will be afterwards described.

Nitrogen.—The term nitrogen is applied to a body we are now about to examine, because it constitutes an essential ingredient of nitric acid and nitre, and all the nitrous compounds. It has been called *azote*, in consequence of its destroying animal life; and it is true, that if you put an animal into it, it will be killed; but all the gases, atmospheric air excepted, are azotics, or destructive to animal life. Or we may take another view of the subject, and say, that azote is necessary for the support of animal life; so that the term azote is every way objectionable, and it therefore ought to be called nitrogen.

It was ascertained to be a gaseous body by Dr. Rutherford, in 1792; he burned common air in a bell glass, and he found that the residuary gas was partly carbonic and partly nitrogen. Now, in order to obtain nitrogen for the purposes of experiment, we decompose common air, which is a mixture of one part of oxygen and four of nitrogen; and therefore, if we can extract the oxygen, nitrogen will remain, and we may do this by burning phosphorus in common air. Its specific gravity is a little lighter than atmospheric air, 100 cubic inches weighing 29.65 grains, or as 9.828 to 1.000; to hydrogen, it is as 14 to 1. This gas is characterised by a series of negative qualities, as it were; it is not absorbed by water; does not affect vegetable colours; has no taste nor smell; and is the only gaseous body with which we are acquainted, not capable of supporting combustion. You see that a taper introduced into it is immediately extinguished, and small animals, when made to inhale it, are almost immediately killed. It has no acid or alkaline qualities, but it enters into a variety of combinations, which produce some of the most important substances in chemistry, the arts, and in medicine, and it will be our business to point out the principal of these compounds.

It way be right here to take a general view of the compounds of nitrogen and oxygen, which are very numerous, and which afford many striking instances of the accuracy of the theory of proportion. First, the nitrogen combines with oxygen in what is called one proportional and one, to produce the *nitrous* oxide, which is composed of 14 parts by weight of nitrogen, and 8 of oxygen, forming 22 of nitrous oxide.

Nitrogen 14.	Oxygen. 8.	=	Nitrous Oxide 22.

Then we have nitrogen and oxygen combining in equal volumes, or one proportional and two, to produce the *nitric oxide*; then we have combination of one proportional and three, forming the *nitrous* acid; of one and four, forming the *nitric* acid; and of one and five, forming the dry nitric acid.

First, of the *nitrous oxide*, which was discovered by Dr. Priestley, but first obtained in a pure form by Sir Humphrey Davy, who procured it by heating nitrate of ammonia in a glass retort over an argand lamp; the salt fuses and appears to boil at a temperature of about 420°; a quantity of gas then passes over, which may be collected over water, and is the nitrous oxide gas, or the first combination of nitrogen with oxygen. If we were to adopt a strict nomenclature, we should call this the *protoxide* of nitrogen, or the first oxide of nitrogen; it is about half as heavy again as atmospheric air; it supports combustion very feebly; 100 cubic inches weigh 4.66 grains; it is to air as 1.544 to 1000, and to hydrogen as 22 to 1. If you introduce sulphur into it feebly ignited, it will probably be extinguished, but if you put it into the gas when well lighted it will burn with a purple flame, and the combustion will be very vivid in the gas. Phosphorus introduced into this gas burns with great splendour, but if in a state of feeble ignition it will be extinguished (a piece of lighted phosphorus was then introduced, and Mr. Brande continued); this gives you a specimen of a very intense ignition and decomposition of the gas, the oxygen being consumed and the nitrogen remaining. It is a very curious fact, in regard to this gas, that it may be breathed for some time, and that it produces effects very analogous to intoxication, making persons incoherent in their talk, rambling in their walk, and so on, in the same way as if they had drunk spiritous liquors, and it has been supposed, that persons may inhale it without inconvenience; but I have seen ill effects left from having inhaled it, such as pain in the head, giddiness, and so on, so that I should advise you never to do it; and I speak this, because in some of the schools of chemistry I know that it is customary to allow the pupils to breath it, but it is a foolish experiment, and you may be content with the statement of the facts. It is absorbable in water, of which it takes up, although slowly, about its own volume at common temperatures.

Now this brings us to the next combination of nitrogen with oxygen, namely, the nitric oxide, the description of which we shall commence in the next lecture.

LECTURE XVIII,

On the Combinations of Nitrogen with Oxygen; Nitrous and Nitric Oxides; Nitrous, Nitric, and Nitro-Muriatic Acids.

GENTLEMEN,—The first thing to be done this morning is to show the composition of nitrous oxide; we have already stated that it consists by weight of fourteen nitrogen and eight oxygen, and we may say that it consists of one volume of nitrogen and one proportional or half volume of oxygen, and these three proportionals undergo, by combination, a condensation, forming about two of nitrous oxide, which gives you an explanation of the cause of the greater specific gravity of the nitrous oxide than its elementary gases. Now when nitrous oxide is subjected to a red heat, which may easily be done by passing it and repassing it through a red hot porcelain tube, you find that it enlarges in bulk, and a gradual mixture is effected of the nitrogen and oxygen, by which nitric oxide is formed, and a portion of nitrogen separated, or, in other words, that it is not permanent, but that it resolves itself into the two forms just mentioned. Another mode of analyzing this gas consists in detonating it with hydrogen; if we take one volume of nitrous oxide and one volume of hydrogen, and detonate them by the electric spark, the result will be, that the water will be forced and that the remainder will be reduced to one volume of nitrogen. This again shows us that nitrous oxide is composed of one volume of nitrogen and only half a volume, or one proportional, of oxygen, since that quantity of oxygen is necessary to form water with one volume of hydrogen. This is one of the gases that has been condensed into a liquid state, but the pressure necessary for the purpose cannot be conveniently shown here, as it is at all times dangerous. The pressure of about fifty atmospheres is necessary to liquefy this gas.

We may now proceed to the second composition of nitrogen and oxygen, which is shown in this table to consist of one volume of nitrogen and one volume of oxygen:—

Nitrogen 14.	Oxygen 8.	=	Nitric Oxide.
	8		30

And to produce this, we pour some copper filings into nitric acid, diluted with three or four times its bulk of water, by this process a portion of the oxygen of the nitric acid is taken way, an effervescence takes place, and *nitrous gas*, or *nitric oxide* is produced.

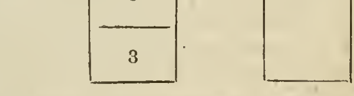
The elements condensing to form this gas undergo no change of volume, and therefore its specific gravity will be the same as that of its component parts; its specific gravity is to air as 1.053 to 1000; and 100 cubic inches weigh 31.77 grains. If, having carefully washed this gas with water, we bring it into contact with vegetable colours; we find that it does not change its colour; it instantly extinguishes combustion, and red fumes are formed the moment the gas comes in contact with the atmospheric air, although not acid in the first instance, having combined another portion of oxygen from the air, it becomes highly acid, forming the nitrous acid.

We shall now introduce a piece of phosphorus into a jar of the nitric oxide, which we shall find will consume its oxygen and leave the nitrogen; so that in this respect the character of the gas resembles nitrous oxide, namely, that at certain temperatures certain bodies are capable of abstracting its oxygen and liberating its nitrogen. Now you have seen that the nitrous oxide is decomposable at a red heat, and that it detonates when an electric spark is passed through the gas; but the nitric oxide will be as a red heat, without undergoing any decomposition, and does not detonate when an electric spark is passed through it; but when some metals are exposed to it at a high temperature for a length of time, it is decomposed.

There is an experiment which I shall now show you, to prove that chlorine produces the same effect upon nitric oxide as upon oxygen, which gave rise to the idea, that nitric oxide contained free oxygen. I shall now mix together a small quantity of nitric oxide and chlorine over water, and you will see that an immediate change takes place; nitrous acid and muriatic acid gases are generated; this is the consequence of the presence of water, the oxygen of which passes to the nitric oxide, converting it into nitrous acid, and the hydrogen passing to the chlorine forms with it the muriatic acid; but this change would not occur if the gases were made in the dry state. (This experiment was shown, and, like every other, perfectly succeeded.)

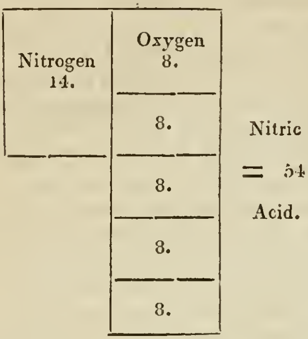
The next compound of nitrogen and oxygen, is that formed of three parts of oxygen, or one volume, and a volume and half of nitrogen; or 14 parts by weight of nitrogen, with 24 by weight of oxygen. This is a compound which cannot be well shown in a separate state, although it has been shown in this way; nitric oxide and oxygen have been mixed over a solution of potash, and an absorption has taken place, showing that the gas is composed of the proportions here stated. Gay-Lussac, who is too correct an experimenter to require any eulogy on my part, has found that a decomposition of the gas takes place, and that there is a gas formed which he has called *pronitrous acid*, but to which the term hypo-nitrous acid is more applicable. It is not a body of any importance, nor are its compounds of importance, but chemically speaking, it fills up the link in the series of the combinations of nitrogen with oxygen.

Now if we mix together two volumes of nitric oxide, and one volume of oxygen, the gases will combine and condense into a red fluid, which is the *nitrous acid*. A condensation takes place equal to half its bulk; and the number or equivalent of the acid is 16, it consisting of one volume of nitrogen 14, and four proportionals of oxygen 32, and the best way of showing this will be to introduce the gases into a glass vessel, in the quantities I have named, the result is an orange-coloured gas, at a common temperature; but at a temperature of 0° it gets liquid. Now the gas we have here is very sour, permanently elastic at high temperatures, but condensible by cold. It is absorbable by water, so that if we introduce a small quantity of water into the vessel, containing also a vegetable colouring matter, you will observe how rapidly the water rises in the vessel, and the reddening effect of the acid upon the vegetable colour. It supports the combustion of several substances when introduced into it at high temperature. A hundred cubic inches weigh 64.94 grains, and its specific gravity to air is as 2.153 to 1000, and to hydrogen as 30.66 to 1. Its composition was thus represented on the table.



It is an acid of no particular importance, as it does not unite with any basis to form salts. If we mix this gas with oxygenous water in the proportion of two volumes of the former to one of the latter, if the gas be pure, there will be an entire absorption of it, and it is upon this principle that we avail ourselves of the nitric oxide gas in the analysis of bodies containing oxygen, to determine the purity and the quantity of the oxygen.

This then brings us to the *nitric acid*, the last compound formed by the union of nitrogen with oxygen, in which one proportional of nitrogen is combined with five of oxygen, and its equivalent number, as you here see, (referring to the table) is 54. It was thus set down:—



Now this is a very important compound, as well in the arts as in medicine, and was first shown by Mr. Cavendish in 1785. To obtain the nitric acid, the nitrate of potash is distilled with sulphuric acid, generally in the proportion of two parts of nitre to one of sulphuric acid, by which process nitric acid is procured in the liquid state. If, however, we wish to obtain the nitric acid colourless, we then employ equal weights of nitre and sulphuric acid, or nearly so, which are the proportions directed in the pharmacopœia, and the theory of the decomposition is as follows. First it may be stated, that nitric acid cannot be exhibited in the recent state without the presence of water, in which one proportional of pure or dry acid is combined with two proportionals of water, whereas the sulphuric acid in the liquid state consists of one proportional of dry acid and of one of water; hence the necessity of the excess of sulphuric acid, if you wish to obtain pure and colourless nitric acid; the red colour of the nitric acid of commerce being a consequence of the smaller quantity of sulphuric acid employed by the manufacturer. If we take 102 parts of nitric acid, 98 of sulphuric acid, and distil them together, the result is, that the nitric acid is separated from the nitrate of potash, which, instead of passing over in the state in which we may suppose it to have been in its combination with the potash, which state would be represented by 54, it seizes upon two proportionals of the water contained in the nitre and sulphuric acid, of which 18 is the equivalent, and then passes over as liquid nitric acid, exhibited here by the numbers 72, and sulphate of potash is left. I need make no remarks on the pharmacopœia process, because it is similar to that just described, and which you see here going on. The colour of the acid varies extremely, depending upon the quantity of nitrous acid which it contains, so that you have it of various shades of yellow, orange, or green. In making the acid for the purpose of experiment, you may safely use a glass retort and Woulfe's bottles. You rarely find the nitric acid of commerce pure, it is apt to contain muriatic and sulphuric acids, in consequence of the nitre employed in the distillation not being sufficiently pure, it often containing as much as one-fourth of its weight of common salt. You may test it with the nitrate of silver, and if it contains muriatic acid, it will throw down a dense white precipitation, which is the muriate of silver, and if it contains sulphuric acid, you may easily detect it, by adding a little nitrate of baryta, when a white insoluble precipitate of sulphate of baryta will be thrown down. It sometimes contains nitrate of potash, which may be ascertained by evaporating the acid in a platinum spoon, and if any thing be left, you may consider that the acid is impure.

In its undiluted state it acts with great intensity upon animal and vegetable bodies, also upon metals, and it may be said to be one of the most energetically acting bodies we have. Its specific gravity, at its utmost density, is about 1.42, and it requires a temperature of 250 to make it boil, and then it distils over without change, and at 40° below zero it has been frozen. It is hydromatric, so that if you expose it to air it increases in bulk and loses in density, like sulphuric acid. The composition of the dry acid is one proportional of nitrogen 14, and five proportionals of oxygen 40: and in its liquid state, as I before said, it contains two proportionals of water. Liquid nitric acid of the specific gravity of 1.5 contains 79.7 per cent. of acid.

It may be decomposed by a great variety of processes, as by passing it through a red-hot tube, by which it is resolved into nitrous acid gas, oxygen and water. Its nature was shown synthetically by Mr. Cavendish, who produced it by passing electric sparks through atmospheric air confined over mercury, the air being composed, as you know, of two parts oxygen and one part of nitrogen.

I shall leave the examination of the *nitro-muriatic acid* until the next lecture, and shall conclude the present by showing you the two compounds of nitrogen with chlorine and iodine, which possess considerable detonating powers.

Nitrogen and chlorine cannot be made to unite directly, but they may be made to do so by an indirect process; and the simplest is to invert a gas of chlorine over a solution of ammoniac. What happens you will see from this experiment; the gas is entirely absorbed, and a quantity of matter, looking like oil, is found at the bottom of the vessel. It consists of one proportional of nitrogen and three of chlorine, and its equivalent is 122. You must be very careful in making this compound; you must be very particular to see that your vessels are quite clean, as this oily-looking fluid is a very explosive compound. If you touch it with a bit of phosphorus, which should be tied to the end of a long rod, it explodes instantaneously, dispersing the water in all directions, and often breaking the basin in which it is contained. You should never operate on more than the size of a mustard seed, or so, at a time, and never try to confine it in any vessel. I shall now transfer a small drop of this oily matter from the cylinder, in which you see it floating, by means of this little glass syringe, and having placed it in a separate vessel in water I shall touch it with a bit of phosphorus, secured in the way already mentioned. (The explosion was as loud as a pistol, and the combustion very vivid.)

The compound of *nitrogen* with *iodine* may be termed an *iodate of nitrogen*; it must be managed with the greatest care, as it can scarcely be handled or moved from one place to another without exploding. It shall be shown in the next lecture, as I see that what I had ordered to be prepared of it has exploded in the night.

FOREIGN DEPARTMENT.

ON THE INFLUENCE OF THE MIDDLE AND INFERIOR CERVICAL GANGLIA OF THE GREAT SYMPATHETIC ON THE MOTIONS OF THE HEART.*

These ganglia, according to MM. Milne, Edwards, and Vavasseur, do not exercise an immediate influence on the motions of the heart. These physicians rest their assertion on the following experiment, which they frequently repeated on dogs and young cats, with the same result:—If after opening the chest of the animals, and turning the ribs on one side, the middle and inferior cervical ganglia be extirpated, the heart pulsates for half an hour, sometimes one hour, with its usual regularity, although respiration had immediately ceased after the thorax had been opened.

SINGULAR EFFECT PRODUCED BY A BLISTER.*

Dr. Ammon, of Dresden, ordered the application of a camphorated blister to a patient affected with a slight attack of pleurisy; the disease had not completely yielded to the employment of blood-letting. The patient would not consent, asserting that some years before the affection under which he now laboured, the application of a blister on the chest produced a strong blennorhagia, which was not cured till after five weeks. The blister, however, was applied, and produced all the good expected from it; but four days after the cicatrisation, the pain having returned, another blister was applied; there soon appeared on the glans penis a deep ulcer, with copious suppuration. Dr. Ammon did not perceive any of the characters of a syphilitic ulcer; he could, however, only attribute the occurrence of the sore to the blister. The ulcer was bathed each day in a solution of acetate of lead, and was cured at the end of three weeks.

ELECTRO-PUNCTURATION.†

Electro-puncturation has been used with great success at the Charité by M. Roux. A young person, eighteen years old, had been the subject of a tumour of the vertebral column for two years, which had brought on complete loss of feeling and motion in the lower extremities. When she was on the point of leaving the hospital, after having remained there for some months without any prospect of relief, M. Roux performed electro-puncturation, by directing in the course of the spinal marrow the galvanic fluid, by means of a very long needle introduced into the spinal marrow across the bodies of the vertebræ, and which was then placed in contact with the Voltaic piles. The patient almost immediately experienced a sensation of tickling at the extremity of the toes, and soon recovered the power of moving them in a slight degree; this power extended successively to the fingers and to the legs, so as to allow the patient to walk without crutches.

DUPUYTREN'S AND LANGENBECK'S MODE OF TREATING PROLAPSUS ANI.‡

The proximate cause of prolapsus ani, probably depends on an extreme relaxation of the levatores ani, so that the upper portion of the gut gradually sinks down, and protrudes beyond the anus. The similarity between the action of the levator ani, and that of the levator palpebræ superioris, induced Professor Langenbeck to perform the same operation for intus-susceptio recti, as for entropium. After replacing a considerable portion of prolapsed gut, this surgeon pinched up the skin in several parts of the orifice of the anus, and removed the folds thus formed with a scissars. The wounds healed in fourteen days, and the prolapsus never returned.

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* Annales des Sciences Naturelles.

* Hecker's Litt. Annalen der gesammten Heilkunde.

† Nouvelle Bibliotheque. Oct. 1827.

‡ Neue Bibliothek fur die Chirurgie, vol. iv. pt. 2.

The cure must have been effected by an increased contraction of the levatores recti. Dupuytren has adopted a similar mode of treating prolapsus ani, in several cases, with great success.

ON A PRETERNATURAL SIZE OF THE MOUTH.†

Christian Weknstedt was born with a very large mouth, and, in his seventeenth year, the transverse diameter of the mouth amounted to six inches and a half. The mother believed that the child had been born with its foot in the mouth; but as this was not observed at the time, it does not appear very probable. The tongue was so large, that it always hung between the teeth, and, according to the mother, was in that position at the time the child was born. To what cause could this unusual size of the mouth be attributed? Professor Langenbeck conceives, that the size of the tongue prevented the complete formation of the mouth, since it extended from one ear to the other, just as in the seventh week of pregnancy. By the removal of the callous edges of the more internal parts of the mouth, and the use of sutures, this part of the body was restored to its natural size and shape.

TWO CASES OF IMPERFORATE HYMEN.

BY PROFESSOR LANGENBECK.‡

A girl, sixteen years of age, who had never menstruated, complained of a swelling on each side of the abdomen in the region of the ovaries, which never disappeared, but became larger, attended with severe pain in the part, whenever symptoms similar to those of approaching menstruation made their appearance, On examination, I found the fluctuation so distinct, that it might readily have been taken for hydrops ovarii. The abdomen was tender on pressure, particularly in the neighbourhood of the swelling. In the vagina there was a thick membrane, by which it was completely closed. On the division of this membrane, a considerable quantity of menstrual blood escaped, after which the fluctuating swellings in the abdomen disappeared. The vagina was enormously distended, and it was now evident that the blood collected in it, had produced the swellings so evident on the sides of the abdomen. The pain in the bowels increased after the operation, and notwithstanding a strict antiphlogistic treatment was adopted, the patient died on the fifth day. On examination after death, several gangrenous spots were observed on the intestines, as well as a considerable quantity of lymph. The vagina appeared like a blown up sac. In this girl, the inflammatory affection was probably caused by the long suppression of the menstrual blood. The operation was, no doubt, the exciting cause, from which we may conclude, that in cases of supressed menstruation from the same cause, it ought not to be so long deferred.

A similar case came under my notice in a girl of nineteen years of age, who had never mentruated. On examining the organs of generation, the orifice of the urethra was found situated an inch lower down than natural; the hymen was of a semilunar shape; the opening in it was so small that a small probe could scarcely be introdued. The septum between the vagina and the urethra was completely wanting, so that the two formed one canal. The bladder, in fact, opened directly into the vagina. I could discover no traces of the uterus, and after the hymen had been perforated, no menstrual discharge came away. The urine at first was passed involuntarily, but this soon disappeared. I believe no uterus existed in this case.

I have in my possession a child with spina bifida in which the entrance into the vagina is blocked up by the hymen; and the uterus, Fallopian tubes and ovaries are wanting. Betwen the bladder and rectum the semilunar folds of Douglas are situated, and between these the hymen. The labia majora are naturally formed. When the vagina is quite closed, and the hymen does not present to the touch a fluctating feel after symptoms similar to those of approaching menstruation have made their appearance, we may conclude that the uterus is wanting.

In another child, the hymen is wanting. Between the labia majora, there are three openings, the superior of which is the orifice of the urethra; below this, the opening into the vagina, and still lower down, the opening of the rectum.

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* Langenbeck's Bibliothek, vol. iv. pt. 3.

† Ibid.

DR. ELLIOTSON'S

CLINICAL REMARKS

ON INFLAMMATION OF THE LINING MEMBRANE OF THE AIR PASSAGES.

Cases of Bronchitis, and Facts respecting the Continental Doses of Tartar Emetic.

UNDER the cold and damp state of the atmosphere, peculiar to this season of the year, affections of the mucous membrane of the air passages have been exceedingly frequent from catarrh (common cold) to the most acute bronchial inflammation. Many cases of the latter description having been admitted into the Hospital within the last month, Dr. Elliotson took occasion to introduce the subject in a Clinical Lecture delivered on the 1st of November.

Dr. Elliotson commenced by remarking, that the slightest form of inflammation in the air passages was that denominated catarrh, which usually begins in the Schneiderian membrane and frontal sinuses, causing heaviness of head, sneezing, loss of smell and taste, &c.; it descends to the throat, occasioning a tickling cough and hoarseness, with expectoration; then passes down the trachea into the bronchi, when all the former symptoms are aggravated, and there exist, in addition, difficulty of breathing and soreness of the chest. If the bronchial affection is very severe, then the respiration is short and rapid, and the cough very violent; the countenance is anxious, the eyes suffused, the lips more or less livid, and there is often splitting headach, especially in the act of coughing.

Unless there is inflammation in the substance of the lungs, or of their covering, bronchitis is not attended with pain in the chest. The wheezing and copious expectoration characterise the disease; the wheezing, or rattle, is *mucous, sonorous,* or *sibilous*, i.e. like the sound of air blown through soap and water; like the cooing of a pigeon, the sound of a brass string, or snoring; or it is hissing, chirping, or like the sound of a prolonged hiss. The sonorous is the most common; the mucous happens chiefly at the latter stage of the disease; the *sonorous* is rendered deeper as the tracheal branches become more swelled and the secretion less, and the *mucous* is heard when the secretion is profuse, distinguished only in the diseased portion and part immediately around, and deeper in the affected part and shriller at a distance. In pleurisy there is no rattle; in pneumonia there is a crepitous rattle, i.e. a crackling sound.

The expectoration in bronchitis is first scanty or suppressed; then thin and salt, or sour and transparent, with pearly particles; it is often black at first; then it becomes viscid, opaque, whitish, and at last white and greenish, so as to be puriform, and it is often fœtid; occasionally hard white lumps are spit up, which are sometimes very large, and have the figure of the bronchial ramifications: in short, said Dr. Elliotson, the state of expectoration renders the three stages of the disease like three distinct chronic forms—first, dry; second, pituitary; third, mucous. Dr. E. further observed, there were two other distinguishing marks of this disease; the one, a hollow healthy sound on percussion, all over the chest, which is not heard in pleuritis or pneumonia; and the other, the respiratory murmur, being heard all over the chest, on applying the stethoscope, except on occasional temporary suspension, this latter circumstance being very remarkable, and arises from some branch being accidentally blocked with mucus, which is blown away, and then respiration is again heard.

There are attendant upon bronchitis the usual general signs of inflammatory disease, as heat, thirst, and a sediment (after a time) in the urine; the pulse is quick and full, but soft. The *extent* of rattle over the chest shows the extent of disease, and if heard over one lung and a large portion of the other, then the disease is of dangerous severity. After death the lining of the bronchial tubes is found to be red, swelled, firm, but sometimes soft, and generally more so, accordingly as the examination is longer delayed from the period of decease. When the case has a favourable termination, there is a copious expectoration, which at length decreases; the disease, after being acute, often assumes a chronic form, and is then called *humoral asthma*; the breathing is then short, and at times very difficult, especially in winter and foggy weather, when, in fact, the disease again becomes acute. In many of the chronic cases, there is so much dyspnœa, that anasarca occurs, and the countenance has a purple hue; sometimes, however, in the chronic forms, there is little dyspnœa, but chiefly a cough, with copious glairy expectoration, called *pituitary catarrh.*

Having said thus much of the general features of the disease, Dr. Elliotson proceeded to the recital of two well-marked cases, lately under treatment in the Hospital. The particulars are as follow:—

CASE 1.—W. Waters, ætat. 40, admitted into King's Ward on the 1st of November; he had been ill about five weeks. He had violent cough, short and rapid breathing, with copious expectoration; sonorous and sibilous rattle heard to a great extent over the chest. The pulse was 120, full and soft; there was no pain. A pound of blood was abstracted from the arm, a blister applied to the sternum, and *five grains of calomel* ordered to be taken twice a day. On the 3d, the bleeding was directed to be repeated, as there was not much alteration of symptoms. On the 6th, the mouth was sore, and the patient was materially better; the calomel was now discontinued, and half an ounce of the solution of tartar emetic prescribed, to be taked daily. On the 10th, the mouth still continued very sore; the cough, dyspnœa, and rattle were all very much lessened: the emetic solution was continued for a week, and the patient then discharged well.

Case 2.—The patient in this case, a man 50 years of age, admitted on the 18th of October, was similarly affected with the former; he had been ill five days only with active symptoms, but had for many years been subject to attacks of this description. His breathing was very rapid; he had copious mucous expectoration, and there was sonorous rattle nearly over the whole of the right half of the chest, and partially over the left side. The pulse was full, quick, and soft; he had been bled a pint on the night before admission.

Treatment.—A pound of blood was abstracted from the arm, a blister applied to the chest, and *five grains of calomel* ordered to be taken every *six* hours; two grains of opium at bed time. On the 20th, the symptoms continued very severe; the mouth not being affected, the calomel was directed to be taken every *four* hours. On the 25th, the mouth had become much affected by the mercury, and the symptoms were all greatly relieved, but still the breathing was hurried and expectoration profuse. The calomel was omitted, and he was directed to take half an ounce of the solution of tartar emetic every morning. This medicine was continued for several days with marked benefit, and the decoction of seneka was afterwards prescribed. Under these means the man was nearly well, when, from imprudent exposure to a current of air, he had a severe relapse, but was soon relieved by the exhibition of an emetic every morning, for a few days.

With respect to the treatment of this disease generally, Dr. Elliotson observed, that in the cases under consideration consisted in local or general blood-letting, blisters, and submitting the system to the action of mercury when the disease is very severe. So convinced was he (Dr. Elliotson) of the power which mercury possessed of arresting acute inflammation, that except in erysipelas, where bark and good nourishment are *sometimes* demanded, and in acute rheumatism, where colchicum answers admirably, he should regard himself as accessary to the death of the patient if the case ended fatally, unless mercury were given so as to affect the mouth. The *tartarised antimony*, Dr. Elliotson said, had been much extolled, epseciaily by Continental physicians, as a remedy in acute inflammations, and he had found that this medicine might be exhibited in large doses. He had given a *scruple* in twenty-four hours, but Rasori is said to give a drachm, or even several, in the same space of time; it excites vomiting at first, but after a few doses it generally ceases to disturb the stomach. Dr. Elliotson considers it to be a valuable medicine, exhibited in large doses; he said, however, that he had only employed it in two cases of acute inflammation, the one pleuritis and the other a case of pneumonia. These patients were in the Hospital last summer, and were bled freely, starved, and blistered during the disease, but tartar emetic was given in lieu of mercury. One patient began with a grain every two hours in solution, and took it for forty-eight hours without nausea, excepting with the first few doses: at the end of the forty-eight hours the patient died. In the second case, one grain of the salt was given in solution, every two hours, for the first five days; then a grain and a half every second hour for two days, and the dose ultimately increased to two grains, which was continued for two days. No sensible effect, or relief, being produced by the medicine, it was abandoned after nine days trial and mercury was had recourse to, but too late, for the patient sunk.

Dr. Elliotson further observed, that he believed, in some of the Continental countries, physicians were content with a far less degree of success than is obtained in this country: from a note in the new edition of Laennec, by Dr. Forbes, he found that Rasori lost 172 out of 832 cases of pneumonia so treated. With rapid mercuralizing, however, he (Dr. E.) did *not believe* 32 would have been lost, provided the medical attendant were called in before all treatment was useless, and allowed fair play.

With respect to the use of emetics in bronchitis, and their employment in the particular cases related, Dr. Elliotson remarked that they are often of much utility when the violence of the inflammation has subsided, and when there remains cough, with copious expectoration and some dyspnea. They are also serviceable in the beginning of the disease, in some instances, where there is no occasion for blood-letting, the patient being from the first in the same condition which follows the violence of active disease. In some of these cases the exhibition of an emetic daily, for a fortnight, will often afford the greatest relief, and Laennec speaks strongly in favour of their use.—In conclusion, Dr. E. alluded to the exhibition of *seneka*, in this disease, a medicine which he said was of great efficacy in restraining the discharge, when very copious; an ounce or two of the decoction may be taken three times a day.

THE LANCET.

London, Saturday, December 22, 1827.

THE Royal College of Surgeons in Ireland, since its establishment, has scrupulously excluded all candidates for a licence to practise surgery, from an examination, except those who have been indentured to its own members or licentiates. The justice of this restriction, as it regards the immediate objects of its operation, and its expediency in reference to the true interests of the institution by which it has been so zealously maintained, have long been themes of doubt and of well-founded complaint. The legality of this exclusion has been lately questioned by a licentiate of another College, under the circumstances recently detailed in these pages, and must be shortly determined, not as heretofore by a conclave of Censors, but in the Court of King's Bench, where it is certain of being as ably discussed as it will be justly decided. Much importance is naturally attached by every grade of the profession in Dublin to the result of the expected trial. The liberal portion of the College look upon it as necessarily involving the fate of a regulation which they have hitherto endeavoured in vain to abrogate; the opposite faction, of course, behold in its annihilation an end to their traffic, in what has been termed education by a corporate antiphrasis; by the multitude of foreign students residing in that city, the question is viewed not without some anxiety, many of whom, no doubt, would avail themselves of their local opportunity of obtaining a diploma at the conclusion of their scholastic pursuits, were this impolitic obstacle not in direct opposition to the accomplishment of their intentions. The pendency of the suit affords a favourable crisis for the consideration of the subject in its various relations; but before entering into a detailed discussion of these several points, it is necessary to take a brief view of the motives in which this obnoxious ordinance originated, and has been so pertinaciously perpetuated; for without the removal of this slough from the surface of the general topic, it would be impenetrable to the sanative influence of reason and argument.

In considering these motives, the objects for which Medical Colleges have been established should be constantly kept in sight, as their simplicity will be always found a convenient and correct scale by which their perversion, and the obliquity of selfishness, may be estimated. The ends for which medical corporations have been instituted, though numerous, are easily defined, and may be reduced into two principal ones—first, the security of the public health; and secondly, the advancement of medical science. For the exclusive attainment of these designs, power has been granted to such bodies, and for no other purpose,—every thing done beyond the accomplishment of these intentions being an abuse of the power conferred. The transfer of this authority is, however, attended with an almost unavoidable evil; for were the Legislature to describe, by positive enactment, the manner in which these objects were to be attained, it would obviously deprive the incorporated body of the means of modifying their measures according to the experience of the past, the exigencies of the present, and of adopting plans of future improvement. To obviate this inconvenience, most charters contain a clause which empowers the corporation to make such regulations as they may deem best suited to fulfil the intentions of the legislature; but still this modicum of liberty, or free-will, is granted entirely on trust, and on the presumption that its exercise shall not be abused for personal purposes, but employed for the advancement of the ends contemplated in the instrument of its conveyance. Through this *donum fatale* of the legislature, it is that corporations seize on the citadel of science, and deal destruction at will on its unprotected professors. No sooner do such bodies possess themselves of this immunity from control, than every idea of the confidence reposed in them disappears, and the most degrading views spring up, as if the aggregation of human nature into the corporate form, could change the constitution of man, and develop new compounds, of which he is incapable in a state of singularity. Their selfishness, aggravated by concentration, and protected, in some measure, by combination, immediately becomes the centre of their revolutions—the single point in their corporate existence to which their attention is directed. No matter under what name, or in what form, they choose to propound regulations for the government of the profession, this original sin of self-aggrandizement must, and will be found, by attentive examination, to mingle itself with all their acts and deliberations. Yet their sagacity generally succeeds in concealing the real design of such ordinances, under a seductive appellation, which not only imposes on the public, but even on the great mass of the profession itself, which are nominally included as participators in these profitable speculations; though, in reality, they are intended for the sole benefit of the master-spirits and contrivers of the intrigue. Thus, the lecturer, when he is told that there is a certain law to be enacted for enforcing an increased number of tickets from the student, pricks up his ears, and is quite enraptured with the justice of a system, which tends to add a few pounds more to his annual income ; in like manner, the member or licenciate, on hearing that raising an apprentice-fee forms a part of any new statute, feels a similar animal instinct, and hurries to the quarterly meeting, to give his sanction to a measure which he conceives calculated for his own profit. Though such specious laws can but rarely benefit the majority of the profession, still the vague supposition that they may do so, is quite sufficient to secure to these measures the assent of the expectant multitude, who prefer the chances of a lottery of this kind, to the honest discharge of a public duty. A life interest in the profession, and some individual advantage, are all that such men usually look to in their conduct ; and although almost invariably disappointed in their expectations, such is the pleasure of feeding on the unsubstantial viands of hope, that the fallacy is perpetuated. The practitioner who indulges in these fancies, and barters his vote for their presumed realization, deceives himself; mistakes his duty as a public character ; and assumes a right which his corporate capacity by no means confers. It is only necessary to appeal to the present and past experience of the surgeons of Dublin, to convince that ninety-nine out of the hundred are never destined to derive the slightest possible advantage from the educational laws which they have supported. His business lies with patients rather than with pupils ; in the practice of his profession, rather than in its tuition ; and it is from such a source he should derive a remuneration for his services and studies, not from any conventional system of education. By a contrary assumption, he besides grossly perverts the moiety of corporate power conferred on him by a charter, the great objects of which, as has been already stated, are the security of public health, and the lawful advancement of the science which he practises. The practitioner, therefore, who speculates on his corporate power for an addition to his emoluments, deserves to be disappointed in his mercenary views, which are obviously founded on an illegal assumption. It is no objection, at least not a valid one, to these arguments, for such a practitioner to answer, that he himself has conformed to a particular form of education ; that it has cost him a certain sum of money ; and that, as far as he is concerned, he possesses a right, and will not give it up in order to admit others to the advantages which he enjoys, except by a submission to a similar mode of education, and an equivalent outlay of expense. Though the motive of this ingenious argument, which is daily put forward, is of a very humble description, being, in plain language, nothing more than if he had said, I have been imposed on, and, consequently, have a right to impose on others, the principle may perhaps be acted on individually, without the attachment of any moral turpitude; and as far as he is concerned, he may refuse to make himself instrumental to the admission of collegiate immunities. But with the individual the right of such conduct terminates, and he cannot, without a violation of the trust reposed in him, extend his corporate power, in order to prevent others from pursuing a different line of action. It is, however, by no means intended to be insinuated, in these observations, that the time and labour of public bodies, and of private individuals engaged in an useful and legal manner, in the tuition of their profession, should not be remunerated, for in all departments of society the workman is worthy of his hire. It is against the total absorption of every other consideration, in the single motive of self-aggrandizement; the conversion of what should be the primary, into the secondary, objects of corporate power; the extension, in short, of public authority to private ends, that these remarks are entirely directed.

Having thus briefly explained the legitimate objects of charters, and the motives by which these objects in general are defeated, we shall resume the subject from time to time, during the pendency of the expected trial, the progress of the contemplated change in the charters of the English and Irish Colleges of Surgeons, until the vile corruptionists who have so long and laboriously sought to convert these establishments into a commercial mart shall be denuded of every rag that conceals the baseness of their present designs. They will be shown that no triumph of a family oligarchy can, in this or any other instance, oppose the power of public opinion; that no ingenuity can convert a national grievance into a tolerable evil; and that the schemes already in preparation to *put down*, as it is phrased by the junto, an individual to whom Dublin is more indebted for professional celebrity than the whole College in the aggregate, will be rendered abortive. The contrivers of the latter scheme are well known; an engine is in our hands which even their corruption dares not contemn, and should they proceed in their contemplated course, the wheel of chastisement shall be kept in motion while a particle of their baseness hangs together.

THE amateurs, both medical and forensic, who expected to be gratified with a grand field-day, in the Court of *Common Pleas*, on Tuesday last, were most wofully disappointed. The scientific OPERATOR, and his able assistant; the PATIENT, and his two nurses; and the learned Judge, who was to have decided on the merits of the operation, were all in attendance at the appointed hour. A very large concourse of spectators, who were anxious to see how the "MODEST AUTHOR" would "*cut up*," had also assembled. When, lo! just as Mr. BROUGHAM had opened his instrument case, and was trying the edge of his favourite knife, SATIRE, it was discovered by the *nurses*, that their interesting charge had suddenly recovered his vision; hence, Mr. BROUGHAM and the spectators were informed, that the patient, under this happy change, declined the operation of DEPRESSION. The announcement of this decision was succeeded by unequivocal marks of bitter disappointment depicted on every countenance in Court, with the exception of those of the patient and his nurses. The elder nurse, who was to have supported the "modest author's" head during the operation, fearing, probably, that her own *fingers* would be severely *cut*, from the bold and slashing manner in which Mr. BROUGHAM wields his instrument, appeared as anxious, frightened and WILD, as the patient himself; and she was evidently delighted, in no ordinary degree, when the "modest author," either from *fear*, or some other cause, shrunk from the fearful consequences of an exposure to Mr. BROUGHAM's unequalled weapon. Had the *capsule*, in which this BAT has been so long concealed, been fairly laid open, and its dense contents thereby submitted to the salutary influence of public opinion, we have little doubt that the "modest author" would have been completely *dissolved* and removed from the axis of professional vision, within just twenty-four hours after the operation.

Jesting apart, we would ask, is it possible that Mr. GUTHRIE ever seriously contemplated trying this cause? We cannot believe he did; for surely, not even the reputation, such as it is, of a *Pure* or a *Bat*, could be in danger from such a harmless, insignificant squib,* as that of which Mr. Guthrie complains. In our opinion, no action was ever more foolishly commenced, or more wisely abandoned (if abandoned it be), although the *time* and *place* selected for withdrawing the *record*, are characteristic of a something which we do not think proper to name. A more trumpery, a more paltry, a more groundless action, was never taken into a court of justice; and had it proceeded to trial, Mr. GUTHRIE would have suffered from its effects, to the last hour of his professional life. Talk of the liberty of the press, indeed! if such a contemptible squib as the letter of ACIES, is to be deemed a *libel*—a squib, referring to a public man, in discharge of his public duty, in a public institution!—better there were a censorship at once, than that public writers should be the constant victims of such a system of mockery and injustice. The law of libel, however, has recently received very considerable improvements; under the plea of "*general issue,*" as much, and very nearly the same description of EVIDENCE being now admitted, as was formerly tolerated under a plea of "*justification.*" This is a boon for which the public are indebted to Lord TENTERDEN and Chief Justice BEST.

As the cause cannot at present be considered as finally disposed of, we shall of course be excused from showing the grounds on which we rest our defence, which will appear in good time, should Mr. GUTHRIE ever be rash enough to proceed to trial. Mr. GUTHRIE, like ourselves, had a host of witnesses, amongst whom were ranked the Duke of WELLINGTON, Sir ASTLEY COOPER, and Sir JAMES MACGREGOR; and it strikes us that the cross-examination of the two latter gentlemen would not have been the least interesting part of the day's proceedings. We are told, however, that Mr. GUTHRIE intended to rely chiefly on the testimony of two individuals, whom we do not hesitate to pronounce, the most unprincipled, the most ungrateful, and the most short-sighted scroundrels that ever disgraced this or any other profession—men whose moral turpitude has gone immeasurably beyond the ordinary course of human crimes. Give us the opportunity, kind, "modest author," of publicly extracting from these wretches a history of their own infamy, and we will ever after call thee—FRIEND.

LAW REPORT.

GUTHRIE *v.* WAKLEY.

THIS cause was called on at the sitting of the Court of Common Pleas, Guildhall, London, on Tuesday morning the 18th instant, a special jury being impannelled and sworn to try the issue joined between the parties. After waiting a few minutes, during which an undefended common jury cause was disposed of by Mr. Justice Burrough, Mr. Serjeant Wilde, for the plaintiff, rose, and stated that he was not quite ready, two of the plaintiff's witnesses not having arrived. A short delay then took place, when Mr. Serjeant Wilde (after conferring with Mr. Chitty, the plaintiff and his attorney,) again rose and stated, that he must withdraw the record. On which Mr. Brougham, for the defendant, got up, and expressed his surprise at the adoption of such a course by his learned friend, and to obviate any difficulty which might interpose in consequence of the alleged absence of one or two witnesses, offered to admit the editorship printing and publishing of THE LANCET, when he was informed by Mr. Lofty, the attorney for the defendant, that admissions to that extent had been previously made ; Mr. BROUGHAM repeated his offer, and said he would admit *any other matter*, the defendant being quite prepared, and expressly desirous of trying the cause on its merits. Mr. Serjeant Wilde declined, however, to proceed to trial, and withdrew the record ! !

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* Letter signed "ACIES," in No. 204.

Medico-Chirurgical Transactions. Vol. XIII. Part II. 1827. Longman and Co.

IN the second part of the thirteenth volume of the Transactions of the Medico-Chirurgical Society, which has just appeared, some of the communications possess considerable merit; but many also consist only of details of cases, without any attempt at an explanation of the phenomena with which they were attended. Too much care and discretion can scarcely be exercised by the council, or managing body of a learned Society, in the selection of papers for publication in its Transactions, because the character of the body of which the Council are the representatives, will be judged of in a great degree by the talent and skill with which such communications are executed. The Royal Society, whatever other causes may have operated on some occasions to lower it in public opinion, has not suffered in reputation by the publication of its Transactions ; in general they are highly creditable to the body from which they emanate, as well as to the country in which they appear. We wish that we could say as much of the Transactions of the Medical and Chirurgical Society of London.

The first communication in the volume before us is from Mr. Arnot, of the Grampus; it contains an account of a case in which a piece of iron hoop, an inch in length and of a crescent shape, was found encysted in the left lung, where it had been lodged fourteen years.

The second, is a case of injury of the head, where, from the bursting of a gun, the breach-pin, three inches in length and three ounces in weight, was lodged in the brain, and imbedded in it, for more than three weeks. The wound was situated just above the centre of the left superciliary ridge, and the aperture in the frontal bone was about the size of a crown piece, through which a considerable quantity of the substance of the brain was discharged. The position in which the breach-pin lay, was with the screw to the aperture, and the other extremity towards the ear of the same side ; it was not extracted without considerable exertion. The patient lost the power of vision of the left eye, but in every other respect completely recovered. The case is related by Dr. Rogers, with some remarks by Mr. Tyrrell. There is no satisfactory reason given for the foreign body being allowed to remain so long in the brain undiscovered. We think this could only have arisen from inattention on the part of the medical practitioner.

The third is a fatal case of inflammation of the left iliac and femoral veins, by Dr. Charles F. Forbes. The morbid appearances observed in this instance were very similar to those which have been described by Dr. Davis, in his paper on Phlegmasia Dolens, inserted in the 12th volume of the Transactions of the Medico-Chirurgical Society.

The next is a fatal case of hydrophobia, from Dr. A. T. Thomson, occurring in a boy eight years and a half old, from the bite of a cat, three weeks after the injury had been inflicted; the symptoms were very decisive of the nature of the complaint. Prussic acid was administered, and at first with apparent relief, but the child died in three days. The following account of the dissection is well deserving of attention:

"The first object being to examine the state of the spinal chord, an incision was made from the nape of the neck to the loins; and the vertebræ on each side of the spinous processes being sawn through, the cervical portion, and part of the dorsal portion of the medulla spinalis, were exposed. The whole of the cellular membrane between the theca vertebralis and the parietes of the canal was loaded with suffused blood, which, in several places, lay in black coagula. Six inches of the chord, from the third cervical vertebra to the fifth dorsal, being removed, and the dura mater slit up, the vessels of the spinal chord were seen turgid, particularly those which accompany the dorsal nerves.

"On opening the cranium, the meningeal vessels were more turgid with blood than is usual, but certainly not so great as to indicate inflammation; nor were there any bloody points seen in the divided substance of the brain, such as present themselves in states of previous great excitement of that organ. The ventricles were empty: the choroid plexus rather more turgid and darker coloured than common; and, on the base of the brain, particularly in the pia mater covering the pons Varolii and the medulla oblongata, there were evident symptoms of inflammation having affected that membrane. The lungs were gorged with dark-coloured blood, but in other respects healthy; as was also the heart and the pericardium. The vessels accompanying the left phrenic nerve were turgid with blood; those of the right perfectly natural.

"The larynx displayed a slight blush, which deepened on the outer surface of the epiglottis, and still more so in the inner surface. The lining membrane of the trachea was also slightly redder than usual. The pharynx showed evident traces of inflammation; but there was no unhealthy appearance in the œsophagus. There were several patches of ecchymosis in the stomach; the liver, spleen, pancreas, and intestinal canal were apparently in a healthy state."

There are some good lithographic representations of the appearances observed on the spinal marrow, by Mr. Perry.

The fifth paper contains a case of *ovarian dropsy* by Dr. Thomas, of Devonport. In little more than nine months, 87 quarts of serum were drawn off at different times, but after the last operation, the woman became much worse, and soon died. On laying open the abdominal cavity, a large tumour, occupying nearly the whole extent of it, was immediately brought into view. It was of a cartilaginous texture, and contained about two quarts of serum. It was found to be the left ovary attached to the lateral ligament of the uterus by a pedicle of peculiar firmness, and about an inch in diameter. It had no other attachment. The uterus and right ovary were healthy.

The next is a valuable communication by Dr. Merriman, respecting the period of parturition in women; we will give the author's own words:—

"Before it is possible to determine the utmost duration of pregnancy, it becomes necessary to ascertain the point of time from which its commencement is to be calculated; but this remains quite unsettled, for some persons date from the time at which the monthly period intermits, others begin to calculate from a fortnight after the intermission: some reckon from the day on which the succeeding appearance ought to have become manifest; some are inclined to include in their calculation the entire last period of being regular, and others only date from the day on which they were first sensible of the motions of the infant.

"It is highly probably that more accurate observation would clear away much of the uncertainty in which this question remains; and it may be hoped that those, whose opportunities afford them the means, will not neglect to note down such facts as may assist in effecting this desirable purpose.

"With the view of somewhat elucidating this subject, I take the liberty of laying before the Society a Table, for the accuracy of which I can fully vouch, and which was thus constructed. When I have been requested to calculate the time at which the accession of labour might be expected, I have been very exact in ascertaining the last day on which any appearance of the catamenia was distinguishable, and have reckoned forty weeks from this day, assuming that the *two hundred and eightieth* was to be considered as the legitimate day of parturition. The subjoined Table shows how often this day was deviated from, and what was the actual number of days from the day of menstrual intermission to the birth of the child.

A TABLE

Of the Births of 114 mature children, calculated from, but not including, the day on which the catamenia were last distinguishable.

At 255 days	1	
256	1	
259	1	
		3 in the 37th week.
At 262 days	2	
263	2	
264	4	
265	1	
266	4	
		13 in the 38th week.
At 267 days	1	
268	1	
269	4	
270	1	
271	2	
272	2	
273	3	
		14 in the 39th week.
At 274 days	4	
275	2	
276	4	
277	8	
278	3	
279	3	
280	9	
		33 in the 40th week.
At 281 days	5	
282	2	
283	6	
284	1	
285	4	
286	3	
287	1	
		22 in the 41st week.
At 288 days	5	
289	2	
290	2	
292	4	
293	2	
		15 in the 42d week.
At 295 days	1	
296	2	
297	2	
298	4	
301	1	
		10 in the 43d week.
At 303 days	1	
305	1	
306	2	
		4 in the 44th week.

"From this Table it seems fair to infer, that conception is effected soon after the catamenial period has intermitted, more commonly than immediately before the recurrence of that discharge, contrary to the opinion of a physician, who has directed considerable attention to this subject; and who says, 'It is *more* probable that conception takes place a short time previous to the next expected menstruation; an opinion which we know many physiologists to entertain.'[*] I may add, that though I have restricted the Table to 114 cases, because those are the only ones which I have been able completely to verify; yet I have calculated a great many more in the same manner, and with results so nearly similar, that I have no doubt of the general correctness of the principle."

Dr. Merriman subjoins three cases, where the period of delivery dated from the last appearance of the catamenia, exceeded forty-four weeks, or three hundred and eight days, thus adding his testimony to the opinion, that utero-gestation may be protracted beyond the usual period.

Mr. Norman, of Bath, relates a case of extra-uterine gestation, where he was obliged to extract the child through an opening made in the posterior part of the vagina. The vagina and peritoneum were divided to the extent of four inches. The operation was rendered necessary, in consequence of the os uteri not being distinguishable, at the time when labour was expected; it was performed on the 14th of October, and the patient died on the 16th. The small intestines and peritoneum were found very much inflamed. The placenta was attached to the right ligamentum latum, from which it was easily separated. The os uteri was situated above the pubes, as in retroversio uteri. The anterior part of the vagina was so compressed under the pubes, that the finger could not be passed, nor the os uteri felt from the vagina. The uterus was thickened and hard, but not scirrhous. The cavity was lined by a well-marked tunica decidua. Mr. Norman thinks, that had the placenta been found after the delivery of the patient, and the uterus not been diseased, the patient would probably have recovered; and he consequently thinks, that in some future case of extra-uterine gestation, when the head may be in a similar position, the operation may be successful.

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[*] "Dr. Lyall, 'Evidence in the Gardner Peerage Cause,' p. 60."

The next paper contains two cases by Mr. Birch, of laceration of the uterus. In one, death followed about eight weeks after the mischief; the other was followed by recovery.

Mr. Birch draws the following conclusions from his cases:—

"1. That delivery ought always to be accomplished, inasmuch as it certainly does not lessen, but I believe increases, the chance of the woman surviving; if she lives, it insures her a more perfect recovery; and moreover it affords the only, although confessedly remote, prospect of saving the child's life.

"2. If the child remain in the uterus, it ought to be extracted by the forceps or lever, if possible; by the perforator, if these will not succeed; or by turning, if neither kind of instrument is applicable. The forceps are to be preferred for a very obvious reason; and embryotomy is preferable to turning, because the pelvis being almost always small, this latter operation would often not succeed, and it would endanger or ensure an increase of the mischief.

"If the child have but partially escaped into the cavity of the abdomen, it ought to be brought back, if we can accomplish it without the greatest violence; and if this be not possible, it must then be taken through an opening in the abdominal parietes.

"4. If the child have entirely escaped into the cavity of the abdomen, it should be brought back through the laceration, if practicable, without great force, which I believe will always be the case when the laceration is of the cervix or vagina, and when the operation is undertaken within any reasonable time from the period of the accident.

"5. That where turning is not practicable, from the firm contraction of the uterus, or where it would endanger a great increase of the rent, there gastrotomy should be had recourse to, as affording the woman a better chance of living, a much better chance of perfect recovery, than a total abandonment of her to the 'vis medicatrix naturæ,' and as giving her child the sole chance of surviving.

"6. That whatever is done should be done speedily, for these reasons; if the child have not already passed into the cavity of the abdomen, the probability is that it will very soon; if the child have passed into the cavity of the abdomen, the shorter time it is in contact with the viscera, the less likelihood will there be of subsequent inflammation, and the less chance will there be of the uterus contracting firmly."

There is also a case recorded by Dr. Smith, of Maidstone, of rupture of the uterus, from which the patient recovered. The case appears to have been very judiciously managed, and the life of the patient to have been saved by the prompt treatment adopted. After the turning of the child had been deemed necessary, the os uteri was found adhering to the vagina under the pubes, and presenting a sharp edge, which firmly resisted the passage of the hand. An incision was then made into the os uteri, so as to allow the hand to pass. There was so much difficulty in getting away the head of the child, that it became necessary to use the perforator. The patient, however, perfectly recovered.

[*To be concluded in our next.*]

VETERINARY INTELLIGNCE EXTRAORDINARY.

On Thursday evening last, we were entertained with another specimen of college liberality, in the appearance of Sub-professor Sewell, as a Lecturer on Veterinary Surgery, at the Royal Veterinary College. The worthy Gentleman, after entering the theatre, opened his harangue by informing the pupils, that the Governors of the Institution had *kindly* permitted him to transfuse to them the very extensive and valuable stock of veterinary surgical knowledge which he had acquired during his twenty-five years experience at the College, in which period of time, it is reported, he has received, at the rate of 500*l.* a year, a sum amounting to 12,500*l.*, besides house-rent, &c.; saying nothing of the other appointments held by the Sub-professor, such as the superintendence of the Light-horse Volunteers' Stables in Gray's-Inn Lane, out-practice, &c.

We were also much surprised, particularly as we do not remember to have seen a deputy professor lecturing before, to see Professor Colman's handsome mahogany cane-backed chair removed, and a dirty old oak kitchen chair substituted for it. A pupil made an effort to get it changed, but failed in obtaining support. The performance, or farce of "Much-ado about Nothing," proceeded tediously enough to a welcome finale. We much wish we could compliment the Governors on their *kind liberality*, more particularly in this enlightened age; but, on the contrary, we must censure them for obliging the pupil, who has paid his twenty guineas for all the knowledge that the practice of the College and the Professors can communicate to him, to give an additional five for the *wonderful discoveries* of a Sub-professor, who has been so well paid for his services. We further contend, that it is the duty of the Governors to consider whether the Sub-professor ought to make any additional charge for knowledge, which the Professor is bound to communicate in *his* lectures, and for which the pupils pay such an enormous fee.

MRS. DENMARK'S CASE.

Aneurism of the Arteria Innominata treated by Mr. Wardrop, *by tying the Subclavian Artery.*

To the Editor of The Lancet.

Sir,—Mr. Wardrop, in his last communication to you,* on this most interesting and important case, seems displeased that I did not enter more fully into its history, in the observations which I had lately the honour of submitting to the Westminster Medical Society, on the subject of "internal aneurism."* He accuses me of having given "a very imperfect statement" of it; a statement which, he says, he is anxious "may not mislead the public."† Mr. Wardrop is, perhaps, offended, that I did not express, in more unqualified terms, my conviction of the perfect propriety, and complete success of his operation. I felt that I had strong motives for my reserve on these points, and am sorry that Mr. Wardrop has not known better how to appreciate them. The subject of my speech was internal aneurism *generally*, a subject which some very recent events had rendered of more than common interest. In illustrating this, I stated no more of Mrs. Denmark's case, than what I thought would be favourable to Mr. Wardrop's declared views of it. I abstained from bringing all the facts of it, as I had observed them, before the meeting. 1st. Because it might have been construed into a breach of confidence in me, to have availed myself of the private professional communications which I had with Mr. Wardrop on this subject, either for the purpose of combating his views in public, if they happened to differ from my own, or for the purpose of anticipating him in their promulgation, if I had happened to adopt them. 2dly. Because I knew that my opinions would be published, might reach the ears of the patient, and perhaps produce doubts in her mind as to her own safety; doubts which Mr. Wardrop's statements in your Journal, have been hitherto so well calculated to keep at a distance. Although Mr. Wardrop's unprovoked attack upon me, (which I felt no reason to anticipate,) may be justly considered to have absolved me from, at least, a part of these ties, I shall still continue to be bound by them, and shall therefore withhold from the public, for the present, any further details of my own impressions as to this case, than those contained in my letter to Mr. Wardrop, already published,‡ and in my speech as reported in The Lancet. The lacunæ which I thus leave, have been so perfectly filled up by Mr. Wardrop's last report to you, that there can no longer exist any danger of the public being misled by me. I must however say, in my own defence, that I feel quite as incapable of using language calculated to mislead, either in this, or any other case, as Mr. Wardrop can be.

This case, Sir, is already the property of history, and your Journal must be referred to for its annals. It is of the last importance to the profession, and to humanity, that the principles and the application of this bold and novel practice, should be maturely and carefully weighed. That this hazardous operation should be viewed in all its bearings, by other eyes than those of the man whose zeal for the improvement of chirurgic medicine first led him to perform it, but whose cooler judgment may, for a moment, have been dazzled by the brilliancy of the anticipated results.

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* Vide Lancet, No. 223.

* Vide Lancet, 208.

† Ibid 220.

‡ Ibid 223.

Under these impressions, I sent to you on the 10th instant copies of the notes which I had taken of two careful examinations of this woman's chest. The first examination was made on the 18th of October, shortly after her return from the country. The second was begun on the 7th instant, before I could have seen Mr. Wardrop's last report to you, and has been continued daily up to this date. To each of these I have attached my own diagnosis and prognosis, with some short remarks made on the occasion. You will be kind enough to keep these papers in your possession, and not to publish them until all apprehension shall have ceased, as to the possibility of Mrs. Denmark's mind being affected by an acquaintance with their contents. Whenever this moment shall have arrived, you will be pleased to give them immediate insertion in your Journal, as the only means left to me of proving to the public, that I have taken some pains to prevent their being misled, by anything I may have said, or written, on this subject.

I have the honour to be, Sir,
Your very obedient humble servant,
D. Barry.

26, Welbeck Street,
Dec. 15, 1827.

WESTMINSTER MEDICAL SOCIETY.

Saturday, December 15, 1827.

Mr. Arnott in the Chair.

Mr. Bennett's observations on the *analogy of internal and external inflammation*, delivered at the former meeting, formed again this evening the text for a discussion, which eventually became very general. It seems to have been the wish of Mr. Bennett to substantiate an opinion, that inflammation is *essentially* the same when it attacks an internal as when it affects an external part; that inflammation to a more or less extent prevailed in a majority of diseases, both extrinsic and intrinsic, and *par consequence,* that a distinction between medicine and surgery cannot obtain.

Dr. Barry spoke at considerable length on the subject of inflammation generally; the gist of his arguments, however, was, that the series of phenomena, to the accumulation of which the term inflammation has been ordinarily applied since the days of Celsus, are not observable in every part of the body, when it may be the subject of inflammation. In fact, that *rubor*, *dolor*, and *calor*, might be absent, and still the part be under a state of intense inflammation, known by its results. He considered that *tumor* is the only essential and invariable attendant upon inflammation, and this *tumor*, arising from a loaded state of the vessels.

Dr. Milligan followed on the same side, referring to many of the internal parts of the body, in which, under a state of inflammation, one especially of the *Celsian* symptoms is not present, namely *redness.* Dr. A. T. Thompson contended for the universal existence of heat, redness, pain, and swelling, under a state of inflammation. Dr. James Johnson thought it important to distinguish between simple excessive determination of blood, observed in the act of blushing, &c., and the same excessive determination combined with other symptoms, the union of which constitutes inflammation.

It was observed by Dr. Stewart on this point, that the circumstance of *continuance* or endurance of excessive determination of blood, is the only ground of distinction between this affection considered simply, and inflammation.

Mr. Lambert, Dr. Shiel, Mr. Skene, and several other gentlemen, took a part in the debate, and at the conclusion, there was some good-humoured skirmishing between Dr. Barry and Mr. Bennett; the latter observing, that although he admitted each different texture of the body, when affected with inflammation, presented especial phenomena, dependent upon its peculiar organisation; yet that they were one and the same affection of the sanguiferous system.

LONDON MEDICAL SOCIETY.

December 17.

Dr. Haslam, President, in the Chair.

The subject of fever was again agitated this evening, in reference to Mr. Bryant's case of abscess in the cerebellum.

Dr. Clutterbuck, who commenced the discussion, entered into a more minute explanation of his views with respect to blood-letting in fever, showing that he did not indiscriminately recommend this practice.

Mr. Wray, without coinciding fully in Dr. Clutterbuck's theory of the cause of fever, strongly advocated the propriety of blood-letting, appealing to the successful result of his practice. He was in the habit of taking away small quantities of blood, as late as the 27th day of fever, when the teeth were covered with sordes, and the tongue dry and "colloped." Mr. Wray inquired whether in was not invariably discovered on the post-mortem examination of fatal cases of fever, that inflammation had existed in some organ or organs of the body. And if such were the fact, blood-letting was clearly indicated.

Mr. Waller, who took an entirely opposite view of the subject, inquired particularly of Dr. Clutterbuck, how it could be reconciled to his hypothesis, as to the cause of fever, that in Mr. Bryant's case of abscess in the brain no fever prevailed, although inflammation of the brain had undoubtedly existed. If inflammation of the brain were really the cause of fever, then fever, as a matter of necessity, must exist in this case; but as fever was not present, Dr. Clutterbuck's hypothesis, as Mr. Waller considered, was, by this very case, disproved. Mr. Waller further remarked, that Dr. Clutterbuck rested his opinion of inflammation of the brain being attendant on all cases of fever, from certain symptoms, Dr. Clutterbuck acknowledging that dissection would not in all cases prove it, but he had seen many instances where all the symptoms which Dr. Clutterbuck enumerated as pathognomonic, were produced from loss of blood.

Dr. Shearman remarked, that inflammation of the brain, (as he had been taught,) is the proximate cause of many diseases, as mania, epilepsy, &c., in which there is no fever. He wished to inquire, whether there really were so many distinct and separate kinds of inflammation of the brain.

Mr. Proctor and Mr. Shirley were opposed to the practice of blood-letting in fevers under ordinary circumstances—contending, that it was impossible to "put out" or "cut short" the fever—that it would run a determinate length, and, therefore, it was necessary to husband the strength of the patient.

Here the conversation ended on the subject of the fever, and the remainder of the evening was occupied by the registrar reading an essay of Mr. Searle, on the powers which promote the expulsion of the fœtus.

The main object of Mr. Searle's paper was, to show that the respiratory muscles are the principal agents in the expulsion of the fœtus, and that the uterus itself is almost passive on this occasion; the proportion of strength, in which it acts, being only as 1 to 100. Mr. Searle remarked, that he had boiled the impregnated uterus of a mare in water, and also an unimpregnated uterus, but could discover no difference in respect to muscularity. He conceived that the muscular power of the uterus was greatly exaggerated, the fibres being attenuated and weak, and bearing a close resemblance to the muscular coat of the arteries. The uterus, at the full period of gestation, when divested of its membranes and blood-vessels, not being thicker than an ovarian cyst. Mr. Searle inquired how it was possible, that so weak an organ could exert such an immense force, as is necessary to the expulsion of the fœtus? Mr. Searle further contended, that if the uterus did contract in the act of parturition, after the expulsion of the liquor amnii, it would grasp, compress, and retain the fœtus, instead of expelling it. Mr. Searle then went on to show, in what manner the respiratory muscles are subservient to many actions of the body, as sneezing, coughing, vomiting, &c.; and observed that in labour, the diaphragm is forced down upon the fundus of the uterus, whilst the abdominal muscles press on the sides, and by the combination of these forces, the contents of the womb are expelled. The abdominal muscles, however, as Mr. Searle conceives, acting but a subordinate part, and entirely ceasing to be efficient, when the child has passed low down. The circumstance of the female taking a full inspiration, and holding her breath, at the time of what is called a labour-pain, was adduced by Mr. Searle in proof of his theory, with other ingenious arguments.

The only writer who fully accords with the proposition, that the respiratory muscles are the principal agents in parturition, is (as Mr. Searle observed) Blumenbach, and he quoted a passage from Dr. Elliotson's translation of this author's work on physiology, which is very express upon the point.

At the conclusion of the essay, the time of the Society had expired; the discussion upon it will, therefore, take place at the ensuing meeting, which is postponed to the 14th of January, in order to allow the worthy members some indulgence in Christmas cheer.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

FATAL CASE OF INGUINAL HERNIA.

Henry Loggins, æt. 22, a stout young man, had been affected with inguinal hernia for nearly a year, but which he could reduce at pleasure, and without pain or further inconvenience. Had never made use of a truss. Early on the morning of the 7th, whilst raising a heavy weight, the hernia came down suddenly, and to a much greater extent than at any previous time. He paid no attention to it for several hours, when it became painful, and he attempted to reduce it. At this time he was also advised to rub the swelling severely, as a means of returning it. He remained during the day and the following night without applying for advice, suffering at times most excruciating pain. On the morning of the 8th, the day following, he applied to Dr. Duffin, of Weymouth Street, who sent him to the Hospital, where he presented himself about eleven o'clock, with the following symptoms :—a large swelling, of the size of a fist, occupied the right side of the scrotum, extending upwards to the external ring ; it was tense, and the integuments somewhat inflamed. There was no tenderness of the abdomen, but on handling the tumour he complained of slight pain. The patient stated, that his bowels had been very slightly opened in the course of the night.

He was put to bed, and bled at the arm till he fainted. Attempts were then made to reduce the bowel, but without success. He took a large dose of castor oil, and a bladder filled with ice was applied over the tumour ; this was continued until the evening, during which, occasional applications of the taxis were employed. Up to this time he had complained of little or no pain, and could readily allow of pressure both on the abdomen and tumour. About seven o'clock he became somewhat restless, had slight hiccup, and tendency to sickness. Little hope of reducing the hernia being now held out to him, he assented to the operation, which was accordingly performed by Mr. Wardrop ; the sac was found to contain a large knuckle of intestine, which was of a dark purple colour : there was also a considerable effusion of serum. The stricture, which was found at the external ring, was divided, and the protruded bowel readily returned. The patient died early in the morning of the next day, having begun to sink soon after the operation. On opening the abdomen, the small intestines were found generally inflamed, but the intestine which had been protruded was almost of a black colour, softer in consistence than natural, with considerable thickening of its parietes.

ST. THOMAS'S HOSPITAL.

CASES OF FRACTURE OF THE CRANIUM.

Case 1.—*Compound Fracture of the Skull, with Depression, unattended with symptoms of Compression of the Brain.—Operation, and Fatal Termination.*

In this case there were no symptoms present, indicative of compression of the brain, although the bone was extensively depressed. Mr. Travers, however, adopted the same plan of treatment as in the case reported last week, where symptoms of compression *did* exist, and for the reasons stated below, which are strictly in accordance with the principles inculcated by Sir Astley Cooper. It is perhaps unnecessary to remark, that the practice of operating in *every* case of compound fracture of the skull with depression is strongly objected to by many surgeons : it is a practice, however, generally pursued at these Hospitals.

J. Williams, aged 13, a robust, healthy boy, was brought to the Hospital on Sunday noon, November 11th, in consequence of having received severe injury to the head, about half an hour previously. The accident was occasioned by the falling of a brick wall, the remnants of a fire, which occurred in Queen Street, a few days before : he was buried in the ruins, and was taken out in an insensible state. When admitted, he had in a great measure recovered his sensibility; the surface of the body was cold and damp, pulse feeble and irregular, countenance pallid, pupils dilated, but obedient to the stimulus of light. He vomited once, and complained of pain in the head. On examining the head, two transverse lacerated wounds were observed, about three inches in length, extending across the vertex towards the right ear : the edges were separated, and dirt was mingled with the blood, in the wounds. At the lower wound a portion of bone could be felt very sensibly depressed, and the same also with the upper wound to a less extent.

It was deemed advisable to send for Mr. Travers, who arrived at the Hospital about two hours after the patient's admission ; at this time reaction had taken place, the pulse having become more regular, and the surface of the body warmer. Mr. Travers, having examined the wounds, and readily discovered the depressed bone, remarked, that although there were no symptoms of compression, yet he considered it proper to remove the depressed portions of bone, for it was highly probable that they would act as irritants and produce inflammation of the meninges, when it would be of no avail to operate.

The boy having been removed to the theatre, the operation was commenced by enlarging the lower wound downwards and backwards, when the depressed bone was rendered very apparent. A portion of the posterior superior angle of the right parietal bone was seen to be fractured transversely, to the extent of about two inches in length, and an inch and a half in breadth; the bone was considerably depressed below the level of the surrounding portion, and was driven under at the upper part. A small portion only was detached, which was removed. It was evident that the depressed bone, from the circumstance of its being driven under, and firmly wedged in, could not be removed without cutting away a portion of the sound bone; this was accordingly done, with Hey's saw, *but not without much difficulty*. This having been at length effected, the elevator was used, and *considerable force* employed, in order to raise the bone, which was done by piece-meal; a small part of the inner table of the skull, which remained after the use of the elevator, was taken away by means of dressing forceps, and this was succeeded by a copious discharge of venous blood. The bleeding was at first attributed to the supposed circumstance of the longitudinal sinus being wounded, but subsequently it was discovered that the blood proceeded from a large vein, passing to the sinus: a dossil of lint was applied, and the bleeding was easily restrained. The whole wound was covered with simple dressing, and the boy put to bed; absolute quietude being enjoined.

Monday 12th. We learn this morning, that shortly after the operation the patient slept; in the evening the pulse was stronger, but compressible, and he complained of pain in the forehead; there had been no further bleeding from the wound. The pulse was 80, early this morning, and slightly intermitting; he had, however, passed a quiet night: the lint was removed from the wound, and no bleeding ensued. A dose of castor oil was given, as the bowels had not been moved. At noon, when seen by Mr. Travers, there was considerable alteration in the patient's condition; the pulse at this time was small and weak—the skin moderately warm—the pupils natural, but there was a dull expression of countenance. He answered questions, somewhat unwillingly and hesitatingly: there had been some bleeding from the wound. The oil having been rejected, and the bowels not yet acted upon, Mr. Travers directed an enema to be administered, with four grains of calomel, a few hours after, if required.

The lad continued in much the same state for several hours, then gradually sunk, and died at six o'clock in the evening.

Post Mortem Examination.

This was made on the following day by Mr. Ward. Externally, there was nothing remarkable to be observed: on removing the calvarium, the vessels of the dura mater were seen to be congested generally, and there was a wound of this membrane, corresponding to the fractured portion of the skull, of about half an inch in extent, and at a short distance from the lateral sinus. The pia-matral vessels were gorged—not with black blood, but with a fluid resembling blood, which had undergone a partial decomposition; the membrane was readily detached from the surface of the brain. The substance of the brain presented no morbid appearance. No other part of the body than the head was examined.

CASE 2.—*Compound Fracture of the Skull, with depression, unattended by symptoms of Compression of the Brain.—Operation, and Fatal Termination.*

In this case, there was less extent of depression of bone; it was however elevated, in accordance with the principle laid down in the former case, by Mr. Travers. The termination of this case will be found to be very remarkable, symptoms of high nervous irritation supervening on the second day after the operation, and eventually proving destructive. Dissection, as usual, revealing nothing in this *disorder of function*.

S. B., æt. 12, of spare habit, was brought into the hospital at the same time with the preceding case, the accident having occurred from the same cause.

When admitted, a circular portion of the scalp, about two inches in diameter, was found torn from the cranium, and reflected; the bone was denuded of pericranium to some extent. There was a fractured portion of bone, of about the size of a shilling, very evidently depressed, at the upper and back part of the left parietal bone. The pulse was small and irregular, the skin cold, the pupils natural; he was perfectly sensible.

In addition to the injury of the head, there was a lacerated wound at the outer angle of the left orbit, extending some way above and below: *the globe of the eye was not injured*. There were bruises in various parts of the body, especially on the right side of the chest and hip.

Mr. Travers having examined the case, and Mr. Tyrrell also, (who was accidentally at the hospital,) it was agreed upon to perform an operation for the removal of the depressed bone, and this was readily effected by the elevator, the bone not being impacted, as in the former case. The dura mater was uninjured. The wound was dressed with simple dressing, and a few strips of adhesive plaster lightly applied.

12. The patient has slept well during the night; he is quite sensible, and complains of pain at the back part of the head; the skin is hot, tongue white and moist, pulse 90, and somewhat sharp. He took a dose of castor oil early this morning, which has operated freely; the wound at the eye has discharged some blood.

13. This afternoon the patient began to exhibit symptoms of nervous irritation, being very restless and fidgetty; he was, however, perfectly sensible. The bowels had been very much disturbed by the castor oil exhibited yesterday. Mr. Travers, considering the symptoms to be referrible to a state of undue nervous excitement, and not dependent upon inflammatory affection, directed an opiate injection to be administered, and a dose of castor, with æther, to be given every four hours. A blister to be applied to the nape of the neck, with three leeches to the temple.

14. The opiate injection procured some repose, and the patient is, upon the whole, somewhat less irritable; the pulse is small, and upwards of 120. The leeches were applied, but not the blister; the castor and æther were rejected, and therefore discontinued. There is nothing remarkable in the appearance of the wounds, to which a bread and water poultice is applied.

15. The patient, to-day, may truly be said to be labouring under the highest possible nervous excitement; he is talking incessantly to himself, and has been doing so throughout the night, almost without cessation; the pulse is exceedingly rapid and small; the bowels have not been moved since Tuesday night. Ordered to take five grains of calomel immediately, and a saline draught, with five minims of laudanum, every four hours.

The symptoms continued unrelieved throughout the day and night, and he died early on the following morning.

Post Mortem Examination.

The body was examined a few hours after death. There was some discolouration of the integuments around the immediate seat of injury. The calvarium having been removed, which was accomplished with much difficulty, the dura mater was found to be perfectly healthy, but a circle of ruptured blood-vessels was apparent at the part corresponding to that portion of the skull whence the *external* pericranium (as we have described) was detached. It seemed that a far more intimate vascular connexion than natural had taken place between the inner surface of the bone and dura mater, and this occasioned the principal difficulty in raising the skull cap. The surface of the brain was equal; there was no appearance of any previous compression having existed. The arachnoid tunic and pia mater were even less vascular than natural, as was also the substance of the brain, which was, however, soft generally. We might perhaps except one portion opposite to the depressed bone, which was certainly more than usually vascular throughout its cineritious structure. No further examination was made.

CASE 3.—SIMPLE FRACTURE OF THE CRANIUM, WITHOUT DEPRESSION, ENDING FATALLY FROM EXTRAVASATION OF BLOOD ON THE BRAIN.

Singular Chronic Disease of the Brain.

W. M., a boy apparently about 15 years of age, was admitted into the Hospital on the afternoon of the thirtieth of November, having fallen upon the pavement from a considerable height, whilst employed in cleaning a window. He was picked up, in a senseless condition, and brought to the Hospital soon afterwards: he vomited once or twice on his way thither.

When admitted his face was pallid, the surface of the body cold, and the heart's action was so feeble that the pulse at the wrist was a mere thread: the pupils were dilated and fixed; in fact all the powers of the body were prostrate. Upon examining the head carefully no wound could be detected; but the scalp was much swollen, apparently from the extravasation of blood: this was more especially the case at and about the junction of the right parietal with the occipital bone, there was also some swelling about the left temporal bone. No fracture or depression of the bone at any part could be found.

The means first employed were those calculated to produce what is called reaction, and consisted in the application of warmth to the surface of the body, and the exhibition of a small quantity of brandy and water, from time to time.*

Dec. 1. The boy now lies in a state of partial stupor, from which he is easily roused, and then tosses about in a wild, irregular manner, apparently without being at all conscious: he cried last evening, but has not spoken. The *left* radial pulse is about 74, weak, and somewhat irregular; the right radial pulse is scarcely perceptible; the pupils are dilated, but faintly obedient to the stimulus of light; the bowels have been freely relieved by a turpentine enema exhibited during the night. There is no pain evinced when the right arm is smartly pinched, but the opposite limb has full sensitiveness; and, singular enough, when this is pinched he moves the right arm.

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* This treatment was directed by the dresser, Mr. Oates, and not by Mr. Travers, as it has been *wilfully* mistated. The patient came into the Hospital about three o'clock on the Friday afternoon, but *was not seen by Mr. Travers until the following morning.*

Mr. Travers saw the patient at nine o'clock this morning, and directed the application of leeches to the temples; the enema to be repeated. Five grains of calomel had been given by the dresser.

Dec. 2. Sunday. 3 p. m. There is not much alteration in the symptoms of yesterday; the pupils *dilate* on the admission of light; the left radial pulse is now small and quick, about 100; the dresser informed us that it has varied much during the night, being at one period very rapid and at another time slow.

3. Noon. The boy remains in the same comatose condition; the pulse at the left wrist is small and quick; the right pupil is dilated and the left is contracted, and the latter *dilates* when light is thrown upon the eye. The bowels were relieved at nine o'clock this morning.

At three o'clock this afternoon, Mr. Travers saw the patient, and divided the scalp very freely at the part we have described as swollen on his admission, under the supposition that a slight depression of the bone, which had not yet been perceived, might exist. No fracture or fissure, however, was detected. The boy was roused, and sensible of pain during the operation, but speedily fell into the same state of partial stupor, as before. The cellular membrane of the scalp was found to be loaded with extravasated blood: the subsequent bleeding from the cut was not considerable. It was not deemed proper, by Mr. Travers, to adopt any further means.

4. The lad was much the same at noon, to-day, as yesterday; but, at about 4 p. m., he became very restless; tossing himself to and fro, as if suffering much pain; the pulse became more feeble, and the countenance anxious. Nothing further was done; Mr. Travers considering it to be a "lost case."

5. Noon. He is now quiet; the pulse is upwards of 120, and feeble; one pupil is contracted and the other dilated No further means have been employed.

6. Noon. Evidently in a dying state. He expired in the evening.

Examination of the Head.

This was conducted by Mr. Mackmurdo: upon denuding and examining the skull carefully, a fissure was found, commencing at the coronal suture on the left side at the point where it is crossed by the anterior meningeal artery, and passing downwards and along the os frontis, to the right external angular process. In addition to this was a second separation of bone; the coronal suture from the point above mentioned, at which the first fissure commenced, was asunder to within a short distance of the squamous portion of the temporal bone; and here the fracture, leaving the course of the suture, took an oblique direction backwards, for a short distance.

Tracing the inside of the cranium with the finger, a slight irregularity of bone was felt at the upper part of the os frontis: upon the dura mater, corresponding to this part of the bone, was a small clot of blood, and this was the only morbid appearance observed on this membrane. When the dura mater was detached, then the mischief which had ensued became apparent: there was very extensive extravasation of black blood upon the brain, at the upper part and side of the middle lobe of the right hemisphere. Thus far, of the result of injury; but continuing the dissection, a singular chronic disease of the brain was discovered:—on separating the hemispheres, in lieu of the corpus callosum was seen an opaque whitish cyst, which readily burst and discharged a considerable portion of serous fluid. This cyst was placed at the under part of the left hemisphere, immediately above the lateral ventricle; in fact, the lower part of the cyst was partially the covering or roof of the lateral ventricle. It was nearly of the size of a pigeon's egg, smooth, polished, and vascular on its inner surface. The left ventricle was greatly distended, containing several ounces of serum; there was no appearance of the corpus callosum, or of the fornix; the floor of the ventricle being covered by a thin membrane (*the velum interpositum*?) The brain was now removed and put in spirit for the purpose of hardening it, and thus allowing of a more minute examination, when the right ventricle was found equally distended with the left, and it was now also distinctly ascertained that there were no relics of the corpus callosum. A slight portion of the fornix was perceptible on the right side, and also its anterior pillars.

The upper part of the spinal marrow, we omitted to say, was examined, but nothing morbid was detected; no other part of the body was inspected. We find upon inquiry of the boy's parents, that he was a lad of weak mental powers, retaining his childish habits and pursuits to an advanced period. He had of late, however, filled a situation of trust, being accustomed, as his mother states, to take care of sums of money, which he did with accuracy and fidelity. She remarked also, that he was frequently in the habit of laying his head down, even when he sat at table, but never complained of pain. He was a patient in Guy's Hospital more than eighteen months ago, on account of injury to the neck from a blow, and he felt for a considerable time afterwards stiffness about the part.

OPERATION OF LITHOTOMY BY MR. TRAVERS.

On Friday last, Mr. Travers performed the operation of lithotomy on a boy four years of age. The gorget was used on this occasion, and a calculus of about the size of a hazel nut extracted: the patient is doing well.

ABUSES AT ST. THOMAS'S HOSPITAL.

To the Editor of The Lancet.

Sir,—It is with regret I am compelled to have recourse to the plan made use of by my brother chips, at the other Metropolitan Hospitals; but since abuses are getting to such a height here, I must crave permission for a corner in your valuable publication. The first thing I have to mention is, with regard to the *Sectio Cadaverum.* It is shameful to think that so much money has been stolen from us, (for so it may justly be termed,) since it was paid for the privilege of attending these examinations; yet day after day occurs without a single notice being stuck up. Some little time since, Dr. Williams thought proper to have notice given, but within one week this improved plan of proceeding stopped. I think, Sir, it would be no bad plan to suggest, that these examinations might take place in the Demonstrating Theatre, against the door of which, as well as in the Surgery, a notice should be posted, as each pupil might then have an opportunity of witnessing the morbid appearances with satisfaction to himself, for in so small a place as the Dead-house there is such cramming and pushing that all cannot conveniently see. Another thing I beg to propose is, that a certain time be fixed for these examinations to take place. With regard to the attendance of the surgeons of this establishment, I must, though unwillingly, complain of Mr. Green and Mr. Travers; I am sure no student can conscientiously complain of Mr. Tyrrell's neglect, he being regularly at his post within a minute or two of twelve o'clock, whereas the other two gentlemen seldom make their appearance till one, and often after that time. It was a short time since proposed, by a few students, that the anatomical lectures should be delivered half an hour later, as there would be then more time to attend to the surgical practice of the Hospital, and the surgeons would probably be more punctual in their attendance; but since the alteration has taken place, I am sorry to say the delay in making their appearance has, on the contrary, increased.

Trusting that what I have said may have some influence towards the acquisition of the rights of myself and fellow students, I have the honour to remain,

Sir, your obedient servant,
A St. Thomas's Pupil.

December 14, 1827.

TO CORRESPONDENTS.

Many communications have been received, and for which we return thanks. Several of them will be most useful.

We should feel greatly obliged to "X." if he would be more explicit on the subject mentioned towards the close of his letter.

"R.L.Y." will perceive that the "cases" were not wanted; we entreat him, however, to keep his eye on the whole of the parties. It is our duty to look out for squalls.

Several Students belonging to the St. Bartholomew's and Webb-street Schools, complain of the disgusting conduct during lecture, of four or five ignorant puppies, who are constantly annoying the class by throwing pieces of paper, orange peel, and other missiles, at such pupils as are desirous of attending to the discourse of their teachers. Why not give the fellows a ducking under the pump? At all events, if the nuisance should be continued, we will publish the names of the offending parties.

The statement of "An Eye-witness" will not be forgotten.

Mr. Lawrence's reply to Messrs. Cooper, Travers, and Butter, has been received, but is unavoidably postponed. It shall, however, certainly appear in our next number.

THE LANCET.

On Saturday, Jan. 5, 1828, a stamped edition of this Journal will be published, (price 1s.) which may be sent, free of post, to any part of the kingdom; also to the British Colonies, on payment of *three half-pence*, at the General Post-Office. Orders for this Edition should be forwarded, as quickly as possible, to the London *Newsmen.*

THE LANCET.

Vol. I.] LONDON, SATURDAY, DECEMBER, 29. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture XII.

Preternatural Labours.

The cases of preternatural parturition, in a view to our remarks upon them, may be commodiously separated into two orders, namely, those in which the operation of *turning* becomes requisite, in order to bring away the child, and those cases in which this operation is not required; and we will, if you please, commence with the simpler cases,—those, I mean, in which turning is not necessary to the child.

The preternatural cases not requiring the operation of turning, consist principally of those here demonstrated,—the presentations of the *feet*, the presentations of the *breech*, and those presentations which, of *mixed* nature, partially partake of the characters of both.

Foot or crural presentations.—When the feet of the child are lying over the centre of the pelvis, the presentation is made out with certainty only after the os uteri has been thoroughly expanded, and the membranes have been broken, and the liquor amnii has been discharged. If at this time you examine with a moderate degree of attention, the feet, naked under the touch, may be recognised with facility; unless, indeed, with all powerful ignorance or negligence you confound the hands and arms with the legs and feet, to which when swelled they bear some resemblance. Even before the disruption of the membranes, and the complete expansion of the os uteri, if you make an examination during the absence of pain, when the membranes readily recede under the touch, although perhaps the disc of the os uteri do not exceed the surface of a shilling;—if one or two fingers be passed into the os uteri, the feet of the child may, I believe, be frequently detected; from examinations of this kind, however, it is better to refrain, lest the membranes be prematurely torn.

When you have ascertained that the feet are lying in the mouth of the uterus, you next proceed to determine the proper moment at which the manual assistance of the delivery ought to be interposed—a point this of the utmost importance. Mere manual operations are easy enough; a mere novice in obstetrics may often with facility abstract the fœtus under crural presentations; but to determine the exact moment at which this assistance should be given, requires a nicety of judgment; and you will find, that by different teachers and practitioners, different rules are prescribed.

Some practitioners there are who take their indications from the laxity of the softer parts, and the openness of the os uteri; and if they find that the mouth of the womb is wide open, and that the softer parts are thoroughly relaxed, so that they feel satisfied that no resistance will be opposed to the passage of the shoulders or the head, they then lay hold of the legs, and draw down and bring away the fœtus as speedily as may be; and, on the whole, this rule is by no means to be despised. In general, where the mouth of the womb is expanded, and the softer parts are relaxed, the child, under the foot presentation, may be safely brought away.

By Denman and others, we have been advised, in these cases of crural presentation, to take the indications for manual interference from a very different circumstance; I mean the elevation of the breech. For when the breech is lying out beyond the external parts, they lay hold of the legs, and accomplish the delivery; but when the breech is lying above the brim of the pelvis, they wait until the natural efforts have pushed the nates to the outlet. The reason of this rule is twofold: in the first place, it is said, that where the breech has passed the outlet of the pelvis, the head and shoulders of the child will generally be found to come away with facility; and secondly, so long as the breech is lying above the brim of the pelvis, so long the umbilical chord will not be subjected to pressure; and so long, therefore, without danger to the child, you may wait, so as to allow of its further descent. When the breech is pushed beyond the external parts, and the chord is compressed in the vagina, unless the child be promptly abstracted, it will probably die suffocated, much in the same manner as if, after delivery, you were to wrap it up in a blanket, or to throw it into water; and hence the necessity of a prompt abstraction from the pelvis.

There is yet a third indication by which some determine the moment of interference in crural presentations, and that is, the condition of the umbilical chord. If the chord pulsate strongly, it is said, we may wait, and trust to the natural efforts; or at all events, if we give any assistance at all, that assistance may be administered with much gentleness, and little activity. If, on the other hand, the pulsation of the umbilical chord is becoming obscure, if it is interrupted for a time, the child being still living, though in danger, then it is said, we should promptly extricate the fœtus, otherwise the circulation being weak, and pressure on the chord continuing, the flow of blood along the umbilical vessels may be interrupted so long, and so completely, that the life of the child becomes extinct.

For myself, however, as on former occasions, I would recommend you to take the indication of delivery not from one of these circumstances singly, but from a combination of them. Called to a crural presentation, before you lay hold of the feet, and begin to draw down, ascertain, by a careful examination, whether the os uteri is open, and the softer parts are relaxed or not. If the mouth of the womb is closed in great measure, or if the softer parts are unusually rigid, you had better not draw down, for doing this, you will find, when you have got away the feet, that the head and shoulders cannot be abstracted, or should you extricate them, overbearing all resistance, you will bruise and lacerate the softer parts, and perhaps detach the head from the body. On the other hand, if you find the softer parts are thoroughly relaxed, so that they yield in every direction under the pressure of your finger, or if you find the mouth of the womb wholly or in a great measure open, so that the passage of the head and shoulders is not opposed, you may then be considered as so far justified in having recourse to manual assistance. I would not, however, have you lay hold of the legs, and draw down merely because you may find the os uteri expanded, and the softer parts relaxed. I would advise you further to observe the rule already prescribed by Denman and others, which is, that the manual operations ought to commence if the nates are lying in the outlet of the pelvis; and further, that they ought not to be attempted provided the nates are at the brim, because in midwifery, unless there is a clear necessity for it, manual interference is improper; and this necessity does not exist when the breech is lying in the upper part of the pelvis, as the umbilical chord is not subjected to pressure, and neither the mother nor the fœtus incur much risk.

In determining when you should give your assistance in a delivery of this kind, I would recommend you further not to neglect the state of the umbilical chord, a circumstance of considerable importance. If you find it pulsating strongly, you may wait a little longer, even if the nates are beyond the external parts, for they may come down somewhat lower, and the delivery may be further facilitated; but if you find the pulsation interrupted, then, as it is clear the action of the heart is disposed to cease, the sooner the fœtus is brought away without injury to the mother the better.

These are the principal considerations, then, to be carefully revolved in mind before you lay hold of the feet and extract. Beware of laying hold of the feet and drawing without reflexion, merely because those parts are lying within reach; before you draw, ascertain that the os uteri is expanded, and that the softer parts are thoroughly relaxed. Before you draw, let the nates be pushed down to the outlet of the pelvis, or a little beyond it; and where the umbilical chord is pulsating strongly, be less prompt to interfere, recollecting that it it is necessary to be more speedy in your operation, if the pulsation be disposed to cease.

The method of giving assistance in crural presentations is exceedingly simple; and, indeed, if you adhere to the rule of not interfering too soon, you will rarely find any difficulty. If the feet of the child present, and the abdomen is lying as I now place it, upon the back of the pelvis, you may assist in the extraction of the child as follows: the nates lying in the outlet of the pelvis, or beyond the external parts, you may wrap a handkerchief or napkin round the limbs, laying hold with the interposition of this texture as the grasp becomes more secure. Your hold thus obtained, you draw down, swaying the child a little from side to side, forward and backward, or obliquely, according as the one or other movement facilitates descent; in so doing, being very careful not to injure the perinæum. When the trunk of the child is passing the pelvis, you may slide up one or two fingers, first on the one side, and then on the other, promptly, but not with hurry; and if you find that one of the arms (a rare accident) is disposed to descend with the body, taking the hand, you may draw the arm forth, and lay it flat and close against the side. If you neglect to perform this operation, the arm may start out at an angle over the brim of the pelvis, obstructing the descent of the child; or should the difficulty be borne down with impatience and violence, fracture or contusion may be produced. Further, (and I consider this hint to be of no small importance,) when you are drawing the thorax through the cavity of the pelvis, I would recommend you again to slide one or two fingers into the pelvis, to feel for the arms, and to take care to press them, as far as may be, upon the promontory of the sacrum; for it sometimes happens, when the child is descending, that one or both arms become fixed behind the head between the occiput and the symphysis pubis, so firm an obstruction being produced in consequence, that you are labouring, perhaps, for ten or twenty minutes before you can get the arm away.

With this precaution, then, having at length brought the axillæ to a level with the external parts, the arms being deposited in the back of the pelvis, you will find that you may extricate them easily enough, nor must this operation be neglected. In many cases, indeed, if the pelvis be large, and the head small, the arms and head might be brought away together; not however without difficulty, for thus combined, they occupy much room, as this apparatus demonstrates, a corresponding delay and compression of the softer parts being produced. In general, therefore, it is better to extricate the arms before the head, and, for this purpose, the axillæ being brought down to a level with the external parts, you throw the body thoroughly out of the way, placing it in the attitude most favourable for the introduction of the fingers, and the intended descent of the arm; and then laying all the four fingers if practicable, if not, one or two only, on the bend of the elbow, you bring down the arms resolutely, but without violence, with a sweep over the face. Be careful to lay your fingers into the bend of the elbow; for if you plant one or two fingers on the middle of the humerus, there will be a risk of fracture,—at this early age produced by slight causes. Having got one arm down, again, by a similar operation (as here demonstrated,) the other arm is, in turn, extracted, nor does it matter which of the two be first extricated; time, however, must not be futilely wasted by indecision, nor must you amuse yourselves by attempting the extraction first of one arm, then of the other, remember the apologue of the frogs—while you are fooling, the child is dying. Usually, when the arms have been extricated in the crural presentation, provided you have observed the rule of waiting till the os uteri is wide open, and the softer parts are thoroughly relaxed, and the nates have been pushed to the outlet, the escape of the cranium becomes easy; now and then, however, if the pelvis is small, or the head large—or if you have unwisely begun to operate, when there has been some little rigidity of the softer parts, in abstracting the head there may be some difficulty. Now your first object, in these cases, should be to acquire a power over the positions of the cranium, and for this purpose with both hands bearing on the shoulder, you put one finger (if practicable) on either side of the occiput, and with one or two fingers of the other hand, you act upon the chin as I now show you. If the head is in the brim of the pelvis, the occiput should lie toward one side, and the face toward the other, so that the long length of the head may correspond with the long diameter of the superior aperture; the chin of the child, where this may be accomplished, being brought upon the chest, as in this apparatus; so that of the three longer axes, the shortest may bear on the long diameter of the brim, the head in this position occupying least room. This effected, draw down in a line tending from the navel to the coccyx—that is, in the axis of the superior aperture, swaying the head however a little from before backwards, till it approach the outlet, when the face should be laid on the sacrum, and the occiput on the pubes, the chin still resting on the chest, so that the long measures of the head being again put into correspondence with the long diameters of the aperture, the cranium may emerge commodiously.

In crural presentations, we sometimes find that the abdomen of the child is placed in front of the pelvis, instead of lying on the back; and there are two ways in which the case may be conducted. First, without changing the situation of the abdomen, *mutatis mutandis*, you may extricate the fœtus, according to rules already prescribed, proceeding as here demonstrated. On the whole, however, I think you will find that the fœtus does not descend so commodiously when the abdomen is lying anteriorly, as when it is placed on the back of the pelvis; and, more especially in this position, much difficulty is to be apprehended in abstracting the arms, shoulders, and head. And hence, in crural presentations, when the abdomen lies anteriorly, it is on the whole deemed better to throw the belly of the child to the back of the mother, as soon as the operation can be performed, and on different occasions this may be attempted. Thus you may endeavour to place the abdomen on the back, after you have drawn the head and arms into the cavity of the pelvis, but you will find it is very difficult to accomplish it at this time, as the head and arms become impacted: or you may attempt this operation as soon as you have laid hold of the feet—succeeding sometimes, though you may fail not infrequently, in consequence of not possessing sufficient command over the body of the child within the uterus. As on so many other occasions, so here, *μετροναρισον*, the turn will be best accomplished when the thighs make their appearance, the nates lying just below the superior aperture, and the head, shoulders, and body above. As soon, therefore, as the nates approach the outlet of the pelvis, the thighs lying within your grasp, the turn should be attempted; for this purpose, laying hold of the thighs close upon the outlet with the left hand, and spreading on the back when practicable the fingers of the right, you draw the child backward upon the sacrum, so as to bring the axis of its body nearly on a line with the axis of the brim, (always cautious, however, lest you injure the perinæum,) and preparation thus made by the cooperating of the two hands with gentleness, yet resolution, you change the situation gradually, as the parts may bear transferring, the abdomen of the fœtus over the side of the pelvis from the front to the back.

In the management of the crural presentations, the following are the principal errors against which you ought to guard. The mistake of the arm for the leg,—the extraction of the fœtus, without previously ascertaining whether the moment of interference is arrived—the neglecting to turn the abdomen upon the back of the pelvis—the forgetting, when one arm is disposed to descend with the trunk, to lay this arm flat along the flank of the child. You may, too, err, as the head descends, in suffering the arms of the fœtus to become impacted between the occiput and the symphysis pubis—or in using such force as may contuse or tear the softer parts, or fracture the humerus of the fœtus, or the clavicle, or the vertebræ of the neck. Festina lentè should be your rule: hurry is inadmissible; a cautious haste is proper. In general, when the chord pulsates strongly, you may proceed more leisurely; when feebly, more promptly. To the security of the mother, the life of the fœtus must always, if necessary, be sacrificed. If there are pains, so much the better; but do not, when once the chord is under pressure, delay the delivery, by awaiting the pains, for the death of the child will be the result of procrastination.

Breech presentation. In preternatural cases, you will sometimes find the breech is lying on the centre of the pelvis, on the whole, a case more favourable than the preceding, as the child is oftener born alive under the presentation of the nates than when the feet present. When the breach of the child presents, even before the membranes are broken, if you are skilful in examination, you may form a probable opinion of the presentation, by carrying the fingers to the os uteri during pain, waiting with the fingers in the os uteri till the womb relaxes, and then through the yielding membranes examining carefully the characters of the nates. Early examinations of this kind, however, I do not recommend. They lead to early interference with the membranes, and might, with rudeness, occcasion a premature disruption—very undesirable in cases of this kind, because, for reasons already assigned, in preternatural labours, the rupture of the involucra should be delayed as long as may be. Certainly, the best time for making out this presentation is later in the labour, when the os uteri is expanded, and the membranes have been ruptured, and the liquor amnii has been discharged: lying naked under the touch, it may then be felt with facility—its roundness, its softness; the cleft between the thighs, the genitals, the anus, and portion of the thighs. In male children, you will feel the scotum generally like a fluctuating bag, not to be punctured. In presentations of the nates, the meconium frequently comes away.

The nates presenting, you are not hastily to infer that manual interference is necessary. Nor are you rashly to thrust the hand into the pelvis to lay hold of the presentation, or to thrust up the blunt hook or forceps, or to have recourse to any artificial measures—as usual a meddlesome midwifery is bad: interference is justified by inexorable necessity only; and in general, the same powers which detrude the head in natural labour, will also, and perhaps with greater facility, push the nates to the outlet of the pelvis; in these cases, therefore, a principal duty of the accoucheur is to wait: put your hands into your pockets, and not into the vagina. *Pazienza*, the familiar ejaculation of the Italian, may be properly adopted by the accoucheur. Some practitioners, when the nates descend, are accustomed to place one or two fingers over the bend of the thigh, right and left, alternately operating as with a hook, carefully drawing during the pains; a practice in which perhaps there is little harm, if cautiously effected; but really, on the whole, adhering to the general rule, you had better abstain altogether, unless interference be obviously required. By the natural and unaided efforts then, the nates may generally be pushed upon the outlet, and when this has been accomplished, as the chord is liable to compression, assistance becomes necessary. For this purpose, grasping the hips, (as here shown,) co-operating with the pains, you may draw carefully down; and, as you draw, (the abdomen of the child lying on the back of the mother,) you carry the loins of the fœtus forward, and towards the mons veneris, so that the legs may of themselves drop forth when the case becomes footling. As a general rule, it is good not to pull forth the legs, indeed not to meddle with them at all, but to leave them, as here, to drop forth spontaneously; for fractures are to be feared.

It sometimes happens, under the breech presentation, that instead of lying behind, the abdomen is situated anteriorly, or to the one or other side, all which is easily ascertained by examining the situation of the thighs and genitals. Now when the abdomen is lying in front, or in the lateral position, on the whole it seems to be a good practice, as soon as may be, to throw the abdomen of the fœtus on the sacrum; for in this position, as observed already, the head and shoulders will be more easily extricated.

This rectification may often be acccomplished without difficulty; and the proper moment for attempting it, is when the nates have reached to the external parts. A rectification, when the nates are at the brim, I would not recommend, because to effect it then, you must carry the hand into the uterus: an operation to which, as you know, a good accoucheur is exceedingly averse. Neither should I advise you, before rectification, to wait till the feet are escaped from the pelvis, for when the shoulders are in the cavity, the arms frequently become impacted between the bones of the pelvis, and the head, and the whole mass becomes so firmly fixed, that the turn cannot be effected. For the purpose of rectification, perhaps, the most favourable moment is, when the nates are pushed thoroughly down to the outlet, and the hips begin to appear. Grasping the part with ease at this time, by little and little, with well-mixed gentleness and resolution, you endeavour to transfer the abdomen to the back of the uterus, and failing in this attempt, you take the case as you find it, throughout the parturition, suffering the abdomen to lie in front. But to proceed.

As the head of the child is not always expelled by the unaided efforts of the uterus, so also the descent of the nates may be obstructed, more especially if the breech be large, or the pelvis small; so that the aids of the accoucheur become necessary. Of the various helps to which we may have recourse in these cases, one of the simplest consists in the use of the fingers, as a blunt hook. Into the bend of the thigh one or two fingers are inserted, and drawing down, you co-operate with the pains, performing the operation alternately on either side, right and left, till the nates at length reach the outlet of the pelvis. To co-operate with the pains is of the utmost importance; without their help you will draw with little effect. If you have not power enough with the finger, you are advised to make use of the blunt hook, here shown; an instrument which, like an ignorant, meddlesome accoucheur, has no feeling for the mother, or her offspring, and to which therefore I am exceedingly averse. In careful hands, indeed, it might be of service; but in hands coarse and rough it may prove a most destructive weapon, even tearing the limb from the body. Should this instrument be necessary, let two fingers be placed over the fold of the thigh, and, under direction of these fingers, pass the hook into the same situation, drawing down afterwards, as always, with mingled gentleness and firmness, so as to bring forward the hip somewhat: this accomplished, you operate on the other side in the same manner, alternately acting on either hip, till the nates make their appearance at the outlet, careful always to avail yourselves of the co-operation of the pains. Preferable, however, to this method is the abstraction of the child by means of a handkerchief, repeatedly tried, and which I find, on the whole, to succeed very well, though it requires some dexterity to use it. For this purpose take a handkerchief (if silk, it is preferable), and sliding it up, on the outer surface of the hip and thigh, as demonstrated; pass it over the bend of the thigh, and bring it ultimately down afterwards between the limbs; adjusting it so that it may lie in the fold formed by the limb and the abdomen, not resting on the middle of the femur, lest it occasion fracture. The handkerchief applied to the one in this manner, in the same way a handkerchief may be applied to the other, and then the two together, giving a complete command of the parts, co-operating with the pains, you may draw down the nates to the outlet. There is yet a fourth mode in which the descent may be assisted, and that is by means of the forceps, as explained in a former Lecture. Taking one of the blades of this instrument, you cautiously slide it over the flank of the child, afterwards with caution and apposition applying to the opposite flank the other blade, in these cases securing the nates with the forceps, just as in ordinary cases you might seize the head. If you use the forceps with violence—ferocious, atrocious violence—you may inflict much injury, damaging the abdominal viscera, breaking the osseous structure of the pelvis, for you have choice of mischief; but if you proceed with gentleness, you may proceed with safety, the security and success of the instrument turning entirely on the way in which it is employed.

Toujours dangereux sinon meurtrier pour l'enfant:—and so certainly it is, M. Capuron, unless very gently and carefully employed.

But it happens sometimes, when the nates are very large, or the pelvis is very small, that none of these modes of delivery will succeed. The fingers, the blunt hook, the handkerchief, the forceps, all have been tried without success. In this difficulty, what is to be done? Why, in cases of this kind, and in these cases only, you are justified in sliding up the fingers, and bringing down the feet, exchanging the presentation of the nates for the crural. I have said it is in these cases only, where you cannot bring down the breech otherwise, that you are justified in having recourse to this operation; for, as a general practice, though adopted by some, it should, I think, be reprobated for two good reasons; first, because more children are born alive under the breech, than under the crural, presentation; and, secondly, because where, in this way, you bring down the feet, it is necessary you should carry your hand into the cavity of the uterus. Now, over and over again, not however too often, I have told you that such practice is to be condemned; and if, in defiance of warnings, any one of you still addict himself to these malpractices, let him take the consequences; on his head be her blood! my hands are free, whatever befal the patient. Do not draw down the nates unless dangerous symptoms require it, or unless the womb have been in action for twelve or twenty-four hours after the discharge of the liquor. If the chord pulsate strongly, the child is in no danger; if there has been no pulsation for an hour, it is dead. In neither case need you accelerate the birth. If the pulsation of the chord begin to fail, this is an argument for interfering, provided, without the smallest risk to the mother, the nates may be brought away. These remarks may meet the interrogatory, When ought we to interfere?

The grand errors to which you are obnoxious in the management of these cases are, I think, the following: making a careless examination, you may confound the nates with the facial presentation, like my friend, whose instructive error I formerly recorded;—meeting with a breech presentation, you may deem it your duty to draw the breech towards the outlet, without further consideration; remember that this practice is erroneous, and that, in most cases, the breech will descend of itself, without the help of the accoucheur. To draw down the legs without need, converting the presentation of the nates into that of the feet, is another great error against which you have been forewarned; remember the risk of lacerating the genitals, and the danger of destroying the child. To use force in the delivery is a very fatal error—arte, non vi; contusions, lacerations, fractures, death, such are the results of force; a disposition to violence is your evil genius, and wo be to the woman whose accoucheur is haunted by it.

Mixed Presentation.—Among the preternatural cases, we sometimes meet with mixed presentations, and on those I shall next remark. Sometimes one leg only presents, sometimes the knees; but if you thoroughly understand the management of the breech and the crural presentations, according to the rules just prescribed, those cases of mixed character are very easily managed. The knees presenting, suffer the uterus to act of itself; and the legs descending, the feet will protrude,—what was a presentation of the knee becoming crural, so that no peculiar practice is required here. If the presentation is of a single leg, I believe, on the whole, your best practice will be to wait, as in the breech case, giving a fair trial to the natural efforts, which will most probably push the nates to the outlet of the pelvis; you may then grasp the hips, as in the presentation of the nates, and the rest of the delivery may be easily accomplished.

When we meet again, Gentlemen, I shall resume.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XIX.

On Ammonia, and its Combination with the Muriatic and Nitric Acids.

Gentlemen,—At the conclusion of the last Lecture, I intended to have shown you the explosive compound produced by the union of nitrogen and iodine. Here is a small quantity of it, which you observe is a brown powder, detonating on the slightest touch, and resolving itself into nitrogen and iodine. It may be procured by pouring a solution of ammonia upon a small quantity of iodine; a precipitate is thrown down, which may be collected upon paper, and allowed to dry spontaneously; for the sake of safety, only very small quantities should be manufactured at a time. When it detonates, the purple fumes of iodine are perceptible, as you see here. (The powder exploded with great violence on the slightest friction.)

Having now finished the description of

the combinations of nitrogen with the electro-negative substances, namely, oxygen, chlorine, and iodine, we now proceed to mention the combinations of nitrogen with the second class of bodies, or such as are electro-positive; and first, of the composition of the ammoniacal gas.

Ammoniacal gas, ammonia, or volatile alkali, as it is called, may be obtained by the distillation of muriate of ammonia and quick lime; and, as it is absorbable by water, it must be collected over mercury. It is a colourless transparent body, like common air. Its specific gravity, compared with hydrogen, is as 8½ to 1; and 100 cubic inches weigh 18 grains, so that it is only about half so heavy as atmospheric air, being in the proportion to it of 59 to 100. It is condensable into a liquid form, under a pressure of 6.5, or six atmospheres and a half; so that we are acquainted with it in its common form, under what is termed a permanent elastic gas.

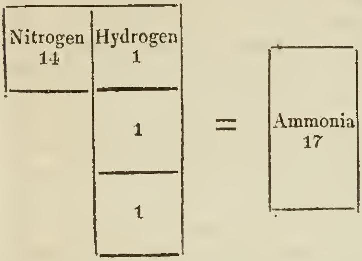
Its general characters are, that it is pungent and acrid; it excoriates and reddens the skin; it has also a biting taste; it dissolves readily in water, and extinguishes flame, but at the same time shows a tendency to burn when in the dark with common air, and if mixed with oxygen in certain proportions, it forms a very inflammable mixture. Its effect upon vegetable colours is like the alkalies, to turn the blues to green, and the yellows to red. Here is a piece of turmeric paper, which, on being exposed to the gas, becomes brown; but on account of the volatility of the gas, this colour is not permanent, and in this way, by their effect upon vegetable colours, we are enabled to distinguish the volatile from the fixed alkalies. If we introduce hot water to the gas confined in a vessel over mercury, it will be rapidly absorbed, and we shall find, that at a temperature of 50°, the water will take up about 670 times its volume of gas. Now from this table you will observe, that water in absorbing this gas increases in bulk, but loses in its specific gravity. One volume of water at a density of 1000, takes up 670 times its volume of gas, and acquires a density of 875, the increase in bulk being only 1.68; therefore the purity of a solution of ammonia may be shown by its levity.

In order to obtain liquid ammonia, you may distil the gas over water, the gas will be absorbed, and you will thus have liquid ammonia; or you may distil water over with the ammonia, and thus have it in a liquid state at once. The Pharmacopœia directs a process of the last kind, that is to say, a distillation of the gas with water, and you may follow the proportions there given, which are eight ounces of muriate of ammonia, six of lime, and four of water; the product is there called the *liquor ammoniæ.* You observe, that in this process the lime decomposes the muriate of ammonia; a muriate of lime is formed, and the ammonia is set at liberty, which becomes absorbed by the water; but the water may also contain some air in solution, and therefore if you distil first the clear liquor, you obtain the ammonia pure. The process requires, of course, that the refrigerant apparatus should be well adjusted; that the lime and muriate of ammonia should be well cleaned, if you wish to obtain the ammonia pure. The specific gravity of the liquid ammonia directed to be used for pharmaceutical purposes, is about 9.692, water being 1000; it contains of ammonia about 9.5, or in round numbers, say 10 per cent. of pure ammonia. The liquid which comes over in the distillation should be preserved in glass bottles. At the temperature of about 140° or 150°, it comes over with considerable rapidity, and therefore you may distil off the gas over hot water.

We now come to consider the composition of ammonia, and the manner in which its nature is determined; and, without entering into any historical detail, it may be stated that we are principally indebted to Scheele for a knowledge of the fact, that nitrogen and hydrogen are its constituents. To prove this, then, in the first place we introduce some ammonia into a jar over quick lime, and pass an electric spark through it; we find that by such decomposition, it undergoes an increase in bulk, and is resolved into two volumes of a mixture of hydrogen and nitrogen, consisting of three volumes of hydrogen and one of nitrogen gas. If you mix together *ammonia* and *oxygen,* and pass an electric spark through the mixture, it will detonate, and the result will be a diminution of its volume, and a portion of the nitrogen remains; the fact being, that the nitrogen is oxidized as well as the hydrogen; so that, if excess of oxygen were used, the whole of the ammonia would disappear, and nitrate of ammonia would be formed.

If we pass ammonia through a red hot tube, it is decomposed, and that more rapidly if in contact with metals, than with other bodies; so that, if we pass it through a red hot iron tube, it does not come out as ammonia, but as a mixture of hydrogen and nitrogen gas; and we find, moreover, that each volume of ammonia produces two volumes of the united gases. These gases are insoluble in water, and are, therefore, easily collected over it; whereas, if the ammonia had passed over, it would have been immediately absorbed by it. We find, by all these modes of examining its composition, that ammonia is composed of three volumes of hydrogen, and of one of nitrogen;

and therefore it is evident, that it is composed of fourteen parts by weight of nitrogen, and three parts by weight of hydrogen, so that its equivalent number is seventeen; but, at the same time, there is a diminution in the bulk of the gases when they form this combination, as is here represented:—



The ammonia thus constituted is detonated with oxygen, and water and nitrogen are the results; and from the amount of diminution in the bulk of the gases, we learn that three volumes of hydrogen have united with three proportionals of oxygen forming water, and that one volume of nitrogen is thrown off.

(The gases produced by passing ammonia through a heated iron tube were then burned, to show the great excess of hydrogen.)

To show you the curious compounds which the same elements under certain circumstances will produce, I shall pass ammonia through a red hot porcelain tube containing the black oxide of manganese, and then in place of an alkali we shall obtain an acid, the nitrous acid gas and water; and you now observe the yellow fumes which denote its presence, beginning to make their appearance. I mentioned to you, in the beginning of the lecture, that hydrogen and nitrogen had no tendency to combine when mixed, but they combine readily in their nascent state to form ammonia. Its production under a great variety of circumstances, especially during the decomposition of animal substances, will be pointed out to you, by-and-by, in that part of the course allotted to animal chemistry.

With the acid bodies already considered, ammonia enters into numerous combinations, and forms a class of salts called *ammoniacal salts*, characterised by being all soluble in water, and by being acted upon by quick lime. Chlorine and iodine also combine with ammonia, but the salts they form are of no sort of importance; but the action of chlorine upon ammonia is curious; it was that which first led Scheele to detect nitrogen in ammonia, by decomposing one part of the ammonia by the chlorine. If you mix together three volumes of chlorine, and three volumes of ammoniacal gas, a portion of nitrogen is thrown off, and the result obtained is a muriate of ammonia. If the gases be dry when mixed, great heat is evolved, and a faint flame is seen to traverse the jar in which the experiment is made. Now here is a solution of chlorine in water in this glass tube, upon which I shall pour a solution of ammonia; as soon as I invert the tube, a great effervescence takes place, and nitrogen gas will be produced, which is another mode of showing the same fact. That it is nitrogen gas which is thus produced, may be easily shown; it is unabsorbable in water, it extinguishes flame, it does not act upon vegetable colours, and is destructive to life. These experiments are curious, as illustrating the nature of ammonia.

One of its principal combinations, as regards its utility in the arts and in medicine, is, with the muriatic acid, to form *muriate of ammonia*, which may be procured by mixing directly equal volumes of ammonia and the acid. It was formerly obtained at the temple of Jupiter Ammon, on the banks of the Nile, from which circumstance it appears to have derived its name, and was, for a long period, brought into Europe exclusively from that country. It has, however, been since discovered in large quantities, in the native state, crystallized, in the neighbourhood of volcanoes, and in the fissures in the lava, near their craters. It has been found at Etna and Vesuvius, and in a district called the Solfaterra, near Naples. It is also occasionally seen in an efflorescent state, upon the surface of pit-coal, but not in sufficient quantity to become an article of commence. It is often coloured from the presence of foreign matter, and is frequently found of a yellow tint, owing to the presence of sulphur; in some countries it is combined with sulpbur in large quantities, as in the rocks of indurated clay, in Bucharia. It is used for a great many useful purposes in the arts, and when dissolved in nitric acid it forms the *aqua regia*, which has the property of dissolving gold; whereas, neither the muriatic, nor the nitric acids, will separately dissolve that metal. Now, this is what happens when you mix the two together;—chlorine is evolved in consequence of the partial decomposition of both acids, and water, chlorine and nitrous acid gas are produced; the hydrogen of the muriatic acid combining with a portion of the oxygen of the nitric acid, to form water, consequently, the residue is chlorine, with the nitrous acid.

There is only one other salt of ammonia which we can now speak of, it is the *nitrate of ammonia*, and we may obtain it directly, by putting ammonia into the nitric acid; a white salt is formed, which readily crystallizes, producing prismatic crystals, and contains a large quantity of the water of crystallization. It is generally employed to obtain the nitrous oxide as already mentioned, and when heated, is resolved entirely into that gas and water. It consists of one proportional of nitric acid, and one proportional of ammonia; or it may, by taking another view of the subject, be regarded as consisting of two proportionals of nitrogen, three of hydrogen, and five of oxygen. It is a deliquescent salt soluble in twice its weight of water, at 60°, and in its own weight of boiling water. It contains a large quantity of water in its crystals, which, according to Berzelius, amounts to as much as 11.232 per cent., but the quantity of water varies with the density of the crystals.

In the next Lecture we shall have to consider the combination of nitrogen with oxygen, forming atmospheric air; and to explain the construction and uses of the air pump.

Lecture XX.

On the Composition and Properties of the Atmospheric Air, and on the Construction of the Air Pump.

Gentlemen,—From what has been said, you are already acquainted with the essential components of the atmospheric air, namely, that it is made up principally of oxygen and nitrogen; and although it will be our business rather to speak of its chemical than of its mechanical properties, we shall mention a few of the more striking of these, when describing to you the construction of the air pump.

Now, you are aware that the air is a ponderous body, and this was first suspected by Galileo, who found, that a copper ball, in which the air had been condensed, weighed heavier than when it was filled with air, under ordinary pressure. Torricelli afterwards demonstrated the fact, whose attention was drawn to the subject by the failure of the attempt of a Florentine well-digger to raise water by a sucking pump, beyond 33 feet. He considered this fact, and was led to conclude, that a column of water of that height was sufficient to equipoise the pressure of the atmosphere, and that it was to this circumstance, and not to nature's dread of a vacuum, that the prevention of the further ascent of the water was owing. In pursuing his investigations, he found, that by filling a glass tube three feet long with quicksilver, and inverting it in a basin of the same fluid, the mercury fell about six inches, so that it appeared that the atmosphere was capable of counterbalancing the pressure of a column of mercury 30 inches high. The space left in the upper part of the tube, by the descent of the mercury, is the most perfect vacuum that can be formed, and was called, after the experimenter, the *Torricellian vacuum*. This was done in 1643. It was afterwards discovered by Torricelli and Paschal, that upon ascending a high mountain, the quicksilver fell in the tube, because, in proportion as they ascended, the pressure of the atmosphere became less, and thus a method was devised of measuring the heights of mountains by the *barometer*. The best for this purpose is that constructed by Sir Henry Englefield, and he has described the mode of using it in the Journal of the Arts.

At the surface of the earth, the mean density or pressure of the atmosphere is considered equal to about 30 inches of a column of quicksilver. You see in this Table the variations in the weight of the column at different elevations from the surface of the earth.

At 1000 feet above the surface the mercury falls to	28.91 inches.
2000	27.86
3000	26.85
4000	25.87
5000	24.93
1 mile	24.67
2	20.29
3	16.68
4	13.72
5	11.28
10	4.24
15	1.60
20	0.95

Now, the general mechanical properties of the air are best shown by the *air-pump*, which was invented by a chemist of Magdeburgh, and afterwards perfected by Hooke. The air-pump is a common syringe, merely made with valves, adapted so as to allow of the passage of air in one direction, and to prevent it in another; in fact, it is the counterpart of a common pump. Now, this sketch will give you a pretty good idea of the common air-pump (referring to a diagram on a black board). Here are two cylinders, into which the sliding pistons are very accurately fitted. A tube issues from beneath the bell glass, which, dividing, opens into the two cylinders; and in each piston there is a valve, opening only upwards. By elevating the pistons alternately attempts will be made to form vacuo beneath them; but, in consequence of the elasticity of the air contained in the bell glass, a portion of it will be forced along the central tube into the cylinders. The descent of the pistons close the valves opening from the perpendicular pipe into the cylinders, and the air then contained in the cylinders is forced out, by the descent of the pistons, through valves in the pistons, which open only upwards; so that, at every stroke of the piston, a fresh portion of air is drawn from the receiver. We have two cylinders in the air-pump, in order that they may be kept in alternate action, and the exhaustion thus be accelerated, and by a repetition of their movements, we arrive very nearly at a vacuum. But, as the air-pump operates only by the elasticity of the air, and as there must always be air to open and shut the valves, it is clear that there must always be a portion of air remaining, the quantity of which is ascertained by a barometer, which is attached to the apparatus; but we shall never be able, probably, to produce a perfect vacuum. The edge of the glass vessel placed upon the brass plate should be ground quite flat, and by rubbing it with a little grease, it may, with a little friction, be made air tight, and then the business of the pump begins. Air-pumps have of late been constructed upon very refined principles; the valves have been opened and shut by mechanical means, to obtain a more perfect vacuum; but this refinement of structure is not necessary for ordinary purposes.

With the air-pump, the first thing that strikes us as illustrating the mechanical properties of the air is its *pressure*, and accordingly you find that you may lift the whole weight of the machine by the glass vessel, but you cannot, by exerting your utmost strength, separate it from the plate. It is held in close contact with it by the pressure of the air, which amounts to about fifteen pounds upon every square inch; and therefore we provide ourselves with instruments which are capable of resisting that great pressure, namely, as you see here, round-topped vessels. If we substitute for the round-topped glass vessel, an open-topped one, the top of which is secured by a piece of bladder, you will see that, by exhausting the vessel, the bladder will be driven in, and ultimately burst with great violence.

The *elasticity* of the air may be shown by placing a flaccid bladder, the neck of which must be tied, under the receiver of the pump; when, by withdrawing a certain portion of air, the bladder will begin to be distended, and the more air you abstract from the glass the greater will the distention become. So that, you see, the air is a ponderous body; that it is highly elastic, and that it has the power of floating or buoying up bodies: for if, by any contrivance, you were to let fall a guinea and a feather from the upper part of the exhausted receiver, they would fall to the bottom in the same time. The preponderance of the larger of the two bodies which balance each other in the open air, and the equal duration of the motion of two fly wheels with their plates placed in different directions in the exhausted receiver, prove the natural buoyancy and resistance of the air. And this leads me to advert to the question, which I dare say you have often heard put, "which is heaviest, a pound of lead or a pound of feathers?" The fact is, that in vacuo the feathers are heavier than the lead, and this arises from the greater surface of the feathers giving rise to a greater preponderating weight. You will see, therefore, the necessity of taking the atmospheric pressure into account in all calculating experiments; and accordingly, when calculations are made, the bodies ought to be weighed in vacuo, thus taking away the air's pressure. If you alter the directions of the valves of the air-pump, you then, instead of pumping air out, would pump it in, making the pump a condensing engine.

I might show you many more experiments; but if I have succeeded in showing you the weight, the elasticity, and the buoyant power of the atmosphere, that must suffice, as we must not waste our time in mechanical experiments, when our object is to show you its chemical properties: but I thought it right to show you thus far its mechanical properties, and shall next exhibit to you the mode of ascertaining the *specific gravity* of the *atmospheric*, and other airs.

A number of methods have been adopted for this purpose; but I shall point out to you the simplest, which appears to me to be that which we ought to employ. Now, the apparatus required for this purpose consists, in the first place, of a glass bulb, made as light as is consistent with its safety, and connected with a brass tube furnished with a stop-cock; a graduated glass jar, also furnished with a stop cock, an air pump, and a balance of the greatest accuracy, are also requisite. Having procured this apparatus, we proceed as follows;—we determine, in the first place, the capacity of the vessel we employ; and supposing this vessel to contain 50 or 100 cubic inches of air, we weigh it carefully, and having noted its weight, we, by the air pump, exhaust the vessel as far as possible, and weigh it again, and the difference in the weights will represent the weight of the air before in the vessel: thus we have a datum furnished, by which we may ascertain the specific gravity of gases generally. Here is a small globe furnished with the apparatus before described; we will first weigh it full of air, and having done this, we will exhaust it, and weigh it again, and we shall find a great difference in the amount. Whatever gas you wish to examine, you have to treat in the same way. Remember, I am not taking temperature into account, at present, because I conclude that the temperature of the globe is the same in both cases; and I do not take the barometric pressure into account, nor the state of moisture of the gases, because I am not making any comparative experiments; we are merely showing you how those things are to be done. The globe was then filled successively with air, carbonic acid gas, and hydrogen; from which experiments, it appeared that if the specific gravity of air were assumed as 1.000, carbonic acid would have a specific gravity of 1.481; and that if air were taken at 1, the specific gravity of hydrogen would be 0.7. The gravity of air has generally been stated to be about 30.2 grains for 100 cubic inches. We made a great many experiments in this laboratory, and we found that 100 cubic inches weighed 30 grains and $\frac{19}{100}$ of a grain; which we may call in round numbers $\frac{2}{10}$; so that they may be said to come near about the same thing. I might here introduce, if our time allowed, the method of determining what a given bulk of a quantity of air would weigh under different temperatures and pressure, but I shall pass it over. I may mention to you, that great care must be taken not to warm any of the vessels by touching them with the hands, which should be covered with leather gloves; you should also take care that there is no water lodged in the air-cock of the receiver. Having ascertained the fact, that 100 cubic inches of atmospheric air weigh 30.19 grains, you may easily know the specific gravity of any gas as compared with it, by the following rule, when we have ascertained its absolute weight: Thus we say, 30.19 · 33.75 : : 1.000 : 1.1175; 100 cubic inches of oxygen gas, weighing 33.7 grains, the specific gravity of oxygen to atmospheric air is as 1.1175 to 1.000.

Now then, we arrive at the *chemical composition* of the air; and it has been a great question with chemists to determine whether air is to be regarded as a simple or compound body; but it seems a mere mechanical mixture of 80 parts of nitrogen and 20 parts of oxygen; and this proportion exists over the whole surface of the globe. I do not mean to say that in large towns the air shall not be loaded with some foreign matter; but whether at sea or on land, whether on the tops of mountains or in valleys, whether at the equator or the poles, the proportion of oxygen to nitrogen remains the same.

These proportions have been determined by experiment with instruments, called *eudiometers*, from supposing that the good qualities of air depend upon the quantities of oxygen it contains. To determine the general fact of the pressure of oxygen an experiment has already been shown, namely, by its detonation with hydrogen. In this apparatus, which is called Volta's eudiometer, it will be seen, that after the detonation of 300 volumes of air with 200 volumes of hydrogen, the diminution in bulk will be 195 volumes, and only a third of that diminution in bulk will be oxygen gas. But I do not know that I can show you the quantity of oxygen in a given quantity of air better than by burning phosphorus in it, which will absorb the oxygen and leave the nitrogen; and if this be done in an eudiometer, it will show you the quantity exactly. I suppose that there are a hundred different methods of showing the quantity of oxygen contained in air, but these will suffice. There is a curious property belonging to the metal platinum, which is, that being submitted to a mixture of oxygen and hydrogen gases, it will cause them to combine and form water, which would also seem to show the quantity of oxygen in a given bulk of air: but it would be rather premature to anticipate the experiment.

Now the result of all these experiments is to lead us to conclude, that atmospheric air is a mixture of oxygen and nitrogen essentially; it contains some carbonic acid and certain animal and vegetable effluvia and other substances floating in the air, especially in large towns and manufacturing districts: but setting all these casualties aside we conclude, that there are 80 parts of nitrogen and 20 of oxygen in every 100 parts of atmospheric air. As there is a number of bodies constantly abstracting oxygen from the air, it might be imagined that its relative quantity would decrease; but it has always happened that the absolute amount of oxygen in it has been the same as it is now, since from the earliest times of experiment no such diminution has taken place. The fact is, that if oxygen be abstracted from air by one class of bodies it is supplied by another, and it has been ascertained that a very considerable abstraction of oxygen may take place without its being perceptible by the finest experiment. If we consider the immense bulk of air above and around us, it will be seen that there is no probability of that quantity ever being exhausted. Oxygen is a powerful supporter of combustion, and nitrogen does not support combustion; but when mixed with 20 parts of oxygen, it operates as we see in common air. Nitrogen is destructive to animal life; oxygen appears to enable animals to breath with great vigour; but only in the proportions before stated, can these gases sustain for a long period animal life; so that there can be no doubt as to the composition of atmospheric air.

In the next lecture we shall proceed with the description of sulphur and its combinations.

FOREIGN DEPARTMENT.

ROYAL ACADEMY OF SCIENCES.

Sitting of the 16th October.

REMOVAL OF THE LOWER JAW.

M. Delpech read a paper on this subject, the chief object of which was to point out the existence of a very serious symptom, by which this operation may be sometimes accompanied. This consists in the retraction of the tongue, produced principally by the glosso-pharyngei, which draw the base of this organ backwards and downwards forcibly against the pharynx, so as to prevent the air from penetrating into the glottis. This motion, according to M. Delpech, depends on the sudden division of the geneo-glossi muscles, whose action instantly ceases to balance that of the glosso-pharyngei. Death might result from the suspension of respiration. This danger had been pointed out by some German surgeons, who thought it a sufficient reason for abstaining from the operation. M. Delpech advises that recourse should be had in all cases to the immediate union of the divided parts, which, according to him, is the only method of preserving the natural form, and of preventing the evil which must result from the retraction of the tongue. The object is to find a force capable of balancing that which draws the tongue towards the pharynx. The re-establishment of the continuity of the geneo-glossi with the rest of the lower jaw, or with any other fixed point, is the means which nature employs for this purpose. Unassisted, nature sets up the suppurative inflammation; but by art adhesion may be produced, the good effects of which are very striking. In some hours, the geneo-glossi included between the approximated parts may have already recovered to a certain degree their former state.

PALATE OF THE CAMEL.

In the camel, the fold of the palate, or velum palati, descends very low, and instead of tonsils, there are numerous little depressions containing greenish concretions, probably salivary calculi. In front of the velum palati is a peculiar organ, the true nature of which is but little understood; it consists of a depending membrane, eight inches long by four inches wide, apparently formed by two laminæ of the mucous membrane, connected by cellular substance, and furnished with muscular fibres, that are probably capable of voluntary motion; its surface is perforated by the oblique orifices of numerous foveoli. It is stated, that during inspiration, air penetrates it, and distends its cells; though the mode in which this can take place is not very obvious, unless it be by means of a large excavation on each side, described as being capable of admitting the tip of the finger.

ROYAL ACADEMY OF MEDICINE.*

Sitting of the 9th of October.

THE ESCAPE OF A LUMBRICALIS THROUGH THE UMBILICUS.

The following case occurred to M. Blanchet, surgeon at Cour Cheverny, near Blois. The curate of this village was seized one day with violent pains in the umbilicus; notwithstanding the use of leeches and fomentations, the pain increased, and a swelling in the umbilical region came on. At the end of eight days, a fluctuation was felt in the tumour, which presented a black spot in the centre; it was opened, and some liquid escaped, containing a living lumbricalis, of more than a foot in length. At the end of fifteen days, the patient was quite cured. M. H. Cloquet observed, that cases of this kind were not of rare occurrence.

MONSTROSITIES.

M. Geoffroy St. Hilaire read a paper on a human fœtus, which was observed by M. Blanchet. This monster, which was born on the 8th of last September, belongs to that class generally called *cyclopes*, because both eyes are inclosed in one orbit, which is situated in the middle of the face, but they are called by M. Geoffroy, *rhinencephali*, because the union of the eyes is only the result of the absence of the olfactory lobes. In the present instance, the apparatus of vision consisted of two eyes contained in one investment; the pupils were separated from each other, and the four lids were distinct, although, altogether, they formed merely one circular lid. Instead of a nose, there was a snout situated above the orbit, consisting merely of the skin of the nose, which was perforated in the centre.

M. Baron presented another infant, which had died the third day after birth. The cranium was depressed anteriorly, the frontal bone was wanting, and the cranium was only formed by the occipital and the two parietal bones, which were very small, especially in front. It had neither eyes nor nose, unless we consider as a rudiment of this last organ, a small flattened prolongation of skin, situated in the middle of the fissure, which was in the upper lip. M. Baron proposes to call this monster *microps*, the principal characteristic of which was, the absence of the forehead, eyes, and nose.

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* Archives Générales, Nov. 1827.

SECTION OF SURGERY.

Sitting of the 30th of August.

LUMBAR ABSCESS, THE CONTENTS OF WHICH WERE, IN PART, DISCHARGED BY THE BRONCHI.

A person, who had been for some time labouring under pain in the left side of the chest, which was followed by difficulty of respiration, and painful movements of the chest, was, at last, seized with a fixed pain behind the false ribs. A fluctuation being perceptible in this spot, an opening was made, which gave exit to two pounds of healthy pus; a few days afterwards, when another opening was about to be made, the patient suddenly, in a fit of coughing, expectorated six pounds of matter mixed with pus, similar to that which escaped from the lumbar abscess. A large opening was made in the abscess, and the patient was cured in about a month.

It is probable that, in this case, the abscess was first formed in the chest, whence it escaped in part into the loins, and in part into the lungs.

HYDROPHOBIA.

M. Cloquet communicated a case of hydrophobia, which occurred in a woman six weeks after a bite in her hand. This woman was admitted into the hospital of St. Louis three days after the appearance of the first symptoms; she was in a state of imminent suffocation, and was seized with violent convulsions at the sight of shining bodies or liquids. The base of the tongue was examined, for the purpose of seeing if any pustules were present, but none were found; notwithstanding, this part was cauterised; the woman died in nine hours after admission. On opening the body, a small pustule was found on the left side of the frænum of the tongue; the mucous follicles at the base of the tongue were very much developed, and covered with a false white membrane, neither very firm nor thick, which extended to the mouth, pharynx, stomach, and commencement of the duodenum. The membranes of the brain were a little inflamed.

STAPHYLORAPHY.

M. J. Cloquet communicated an account of an operation for divided palate, which he recently perfomed; notwithstanding two sutures were used, there remained an opening in the upper part of the fissure, which he several times touched with caustic. Inflammation ensued, which caused the complete adhesion of the parts.

THE PHYSICIANS'

INTENDED PETITION TO THE LEGISLATURE.

It has been determined that a Petition shall be presented to Parliament early in the ensuing session, on the part of the Doctors of Medicine of the United Kingdom, Graduates of the Scotch and other Universities, with a view of engaging the Legislature to emancipate the profession from the shackles which have for centuries been so illegally and unjustly imposed on it by the arrogated professional monopoly of the College of Physicians in London; of which Petition the following is an outline:—

1. It is essential to the national welfare that his Majesty's subjects be supplied with medical attendance, of excellence commensurate with the improved state of science, and avouched by competent testimonials.

2. To affect these objects, it is necessary that the profession of physic be so organised as to insure adequate qualifications on the part of practitioners, and afterwards to secure, to individuals so qualified, full power to exercise their talents, in the way most conducive to the public good and to their own interests.

3. On this account, it is incumbent on the Legislature to establish by law, such an arrangement of the profession, in its several branches, as shall insure that all who profess the practice of the art, possess the necessary qualifications.

4. The supply of medical aid being left free to accommodate itself to the demand, the welfare of the profession requires that its different branches be protected, both from unqualified intrusion and from unnecessary restrictions.

5. To enable your Honourable House to judge of the alterations required for this profession, it appears necessary to inquire into the nature of the divisions of its different branches, the relative proportion of their numbers to each other, and to the population, in this, as compared with other nations, as well as the causes and effects of these divisions and proportions respectively.

6. That a feeling very generally prevails, that serious grievances do exist in the medical profession, is placed in evidence by the following facts, either officially before your Honourable House, or otherwise notorious:—Last year it was resolved, by the surgeon-apothecaries, or general practitioners, that a petition be presented to Parliament, praying for an inquiry into the existing state of medicine and surgery, so far as regards the general practitioner, &c. It

was, about the same period, resolved, by the members of the surgical profession, that a petition be presented to the House of Commons, for a committee to inquire into the abuses of the College of Surgeons, &c.; and your petitioners now humbly state their grounds for respectfully soliciting a revision of all the laws which regard the several branches of the profession, particularly the physicians' department, and also the laws by which the College of Physicians of London are, or profess to be, governed.

7. Your petitioners presume the more earnestly to solicit the attention of your Honourable House to those circumstances, from having observed the hazard of legistating for any single department of a collective profession, without special reference to the interests of all its branches, as well as of the community at large. As an instance in point, they might mention the unsuitable powers unwarily granted to the Society of Apothecaries, by the act of 1815.

8. Your petitioners now come to their more immediate object, of submitting to your Honourable House a general view of the grievances under which the profession and the public labour, as connected with the organisation of their own department, which abounds in evils urgently calling for legislative remedy.

9. Upwards of three centuries ago, the physicians of London were constituted a Corporation, or College (unum corpus et communitas perpetua, sive collegium perpetuum) principally for the purposes of "restraining and suppressing illiterate, unexperienced, and unlicensed practisers;" to which association were granted all the usual rights and privileges which royal charters confer.

10. It would be well if the spirit, or even the letter, of this charter had been regarded by those who administered its powers; but, unhappily, the course of proceeding adopted by this body, from its earliest formation, has set at naught the laws under which they were to be governed; and, by arbitrary and illegal by-laws, they have superseded the authority of the statutes, introducing practices to which these statutes afford no sanction,—excluding a large portion of the profession from rights to which the charter and statutes give them claim,—creating distinctions utterly at variance with all that the law enjoins,—and so limiting the college, as, without any legal authority whatever, to exclude from its pale all who do not derive their qualifications from the medical degree of Oxford or Cambridge.

11. Were this power even conferred by statute, it would, at the present day, be an oppression as absurd as it is unjust; for, in the course of events, other medical schools in Britain have risen to an eminence far surpassing what Oxford or Cambridge could ever boast of; and the law, if it existed, would present the solecism of conferring the highest medical honours upon those who least deserved them; nay, of wholly limiting them to this favoured few; all other Physicians, however eminent or capable, being absolutely excluded.

12. These regulations operate with peculiar severity and injustice on Physicians of the Catholic and Dissenting persuasions, who are, under all circumstances, excluded from the fellowship.

13. The law, however, gives no such power; for your petitioners seek in vain, either in the charter or statutes, for any grounds on which the proceedings pursued by this College can be justified.

14. So entirely has the reputed College of Physicians departed from the legal authorities from which it springs, that the whole discipline of the College, and even its very denomination, differ essentially from what the law has directed; so that, were the present College required to prove its identity with that of Henry VIII., your petitioners are persuaded they would be unable to establish the fact.

15. In the whole course of proceeding followed by this college, your petitioners can discern no motive having for its object the public good, or the advantage of the profession; its unvarying tendency being, to establish within the profession an odious monopoly,—giving rank exclusively to those who can show no claim to professional superiority; attempting to make the largest portion of British Physicians outcasts and aliens in their own country, and, by the influence of these signal abuses, degrading the whole profession, and exposing it to the encroachments which the subordinate departments have so successfully made on it.

16. Of these encroachments, however glaring, your petitioners mean not to complain, nor do they seek protection from them in any exclusive rights or privileges.

17. Your petitioners, however, do seek relief from the unjust and illegal restrictions imposed on them by the College of Physicians, so as to enable them to enter into professional competition with an equal chance of maintaining their own title to public approval.

18. The abuses which, for the advantage, real or imaginary, of a very few individuals, have thus existed for centuries in the higher branch of this profession, appear now to have approached the highest degree of which they are susceptible; preventing the public from having a free choice of their Physicians; greatly augmenting the expenses incidental to sickness; preventing

Physicians, with the exception of the favoured few, from aspiring, with any chance of success, to offices of dignity or emolument; impeding the progress of science, and infringing upon the rights of the Universities.

19. The grounds of all the foregoing assertions your petitioners are prepared to prove, and they trust that, in what they have averred, a sufficient apology is furnished for the present appeal, and a sufficient cause shown why your Honourable House should take this most important and long-neglected subject under your early and mature consideration.

20. What precise reforms of the profession may be called for, your petitioners presume not now to mention; they merely submit, most respectfully, to your Honourable House, that great amendment is needed in every part of the British dominions. They solicit only inquiry into the defects and abuses of which they complain, and they rely with confidence on your Honourable House for granting them, as the result of that inquiry, such relief as your Honourable House, in its wisdom, may deem meet.

21. Your petitioners venture only to suggest, that a Parliamentary Committee of Inquiry would, in their opinion, be the most effectual means of eliciting and verifying the necessary information; and they respectfully submit, that the importance of the subject, whether as it regards the welfare of the public, or the interests of an useful and much-aggrieved profession, fully entitles it to the grave examination which they solicit.

And your petitioners, &c.

All physicians, whether in town or country, who may approve the principles here set forth, and desire to contribute their efforts towards obtaining the objects sought, are requested to communicate their sentiments, without delay, to the Faculty of Physic in London, (post free) to the care of Messrs. T. and G. Underwood, 32, Fleet-street; Messrs. Callow and Wilson, Prince's-street, Soho; or, Messrs. Burgess and Hill, Great Windmill-street, Piccadilly. And it is further most earnestly requested, that they take an early opportunity of making the members of Parliament, magistrates, and other influential persons in their respective neighbourhoods, acquainted with the real bearings of the important questions at issue, which have recently undergone such full and able discussion in the medical and other journals of the metropolis, as to have been rendered perspicuous to all who have had an opportunity of attending sufficiently to the subject. For the convenience of those who may wish to suggest improvements, the paragraphs of the proposed petition are numbered.

WESTMINSTER MEDICAL SOCIETY.

Saturday, December 22, 1827.

Dr. SOMERVILLE in the Chair.

THIS evening (according to a regulation of the Society) being set apart for the miscellaneous recital of cases, Mr. Duncan commenced by relating a fatal case of *colica pictonum*, which had lately fallen under his care. The patient, it seems, was a young man, and a painter; he laboured under all the symptoms which are said to characterise lead-colic; but it is a singular fact, that there was, in addition, *exquisite tenderness of the abdomen*. The bowels were obstinately constipated, the pulse was small and quick; the medicines were simply ejected from the stomach on some occasions, but there was otherwise *no vomiting*. The disease ended fatally on the tenth day; and upon dissection the only morbid appearance to be detected was a few ecchymosed spots in the mucous membrane of the stomach. The remedies employed were—blood-letting from the arm once, the exhibition of purgatives and repeated doses of colomel and opium; but the system was not put under the decided influence of mercury. The man had previously laboured under several attacks of a similar description, and had been engaged in painting to the period of his last attack.

In the discussion which ensued upon this case, Dr. Barry contended that the symptoms were referrible to poisoning from arsenic, and not from lead. He observed, that arsenic is much employed by painters, and that the effects of this poison on the animal economy, are precisely the same, whether it be inhaled or swallowed, and that the symptoms present in Mr. Duncan's case were those of poisoning by arsenic. The circumstance of red spots being found in the mucous coat of the stomach, and also the tenderness on pressure, were strongly dwelt upon by Dr. B. in corroboration of his opinion. Dr. Barry further remarked, that a great number of patients affected with *lead colic*, are constantly presenting themselves at La Charité, and the treatment there pursued consists in the exhibition of a *solution of tartar emetic*, so as to induce vomiting and purging.

In opposition to the opinion of Dr. Barry, that the symptoms present in Mr. Duncan's case were attributable to the inhalation of arsenic, Mr. Lambert remarked, that one of the most prominent effects of this poison was absent, namely, *vomiting*. Further, that the spots observed in the lining of the stomach were, according to Mr. Duncan, simple ecchymoses, whereas, in poisoning from arsenic they are gangrenous spots.

Dr. AYRE said, that he had had extensive opportunities of witnessing lead-colic, having been for some time the medical attendant of a lead manufactory, in which upwards of 200 persons were employed. He regarded the disease purely as a nervous affection, and had treated it invariably with success, by exhibiting calomel and opium, until ptyalism was produced. Dr. Ayre strongly deprecated the practice of blood-letting, and related some cases which proved fatal under this plan of treatment. In severe cases of lead colic, Dr. A. said, that delirium was occasionally present, amounting in some instances to absolute raving. With one patient, a female, there were decided epileptic paroxysms. The delirium he considered as precisely of the nature of the delirium tremens of drunkards, and in such cases he administered rum freely, with the calomel and opium; in some instances, the opium alone was given by enema, when the patient was unable to swallow. In the numerous cases of lead-colic which Dr. A. has witnessed, *the pain was much alleviated by pressure;* and in reply to an observation from Dr. Macleod, that paralysis of some part of the body was a frequent concomitant of the colica pictonum, Dr. Ayre said that *he* had rarely met with paralysis in such cases.

Dr. **Macleod** confirmed the statement of Dr. Ayre with respect to the efficacy of mercurialization in the affection under consideration, but did not coincide with Dr. A. as respects blood-letting, believing that, as the disease varied in different individuals, so there were cases in which blood-letting is clearly indicated. In confirmation of this opinion, Dr. Macleod spoke of two patients, a father and son, both of whom have had repeated attacks of lead-colic; the father always has great tenderness of the abdomen, and experiences the most decided relief from local and general blood-letting, whilst the son has no tenderness of the abdomen, and bleeding consequently is not resorted to. Dr. Macleod, for these reasons, thought it was judicious practice, on the part of Mr. Duncan, to abstract blood in his case.

The palsy of the wrists, or " wrist drop," said to be produced in painters from the use of lead, was the next point for discussion.

Mr. **Bingham** thought, that the paralysis was not attributable to lead, but that it arose from the circumstance of the peculiar position in which the painter necessarily holds his brush; and in confirmation of this opinion, Dr. Barry observed, that palsy of the wrists is of frequent occurrence in Ireland amongst the flax beaters, who are not subjected to lead. A friend of Mr. Bingham, it seems, acting under the impression, that the wrist-drop of painters is produced solely from the constrained and constant action of the muscles employed in moving the brush upwards and downwards, has invented an apparatus to obviate this evil, and is about to take a patent for this " grand discovery," as Mr. B. entitled it.

Several other members expressed their opinions on Mr. Duncan's case, and the disease generally. Upon the whole it was an interesting discussion.

ST. GEORGE'S HOSPITAL.

CASE OF STRICTURE OF THE RECTUM.

D. P., a middle-aged man, of a weak habit of body, was admitted into this Hospital on the 12th of September, under the care of Mr. Jeffreys, with a stricture of the rectum. He informs us, that thirteen months ago he had an attack of dysentery, since which he has always been more or less troubled with diarrhœa, attended with great pain; he has also been subject to internal piles, which descend occasionally, and bleed a little; he has taken a good deal of mercury. On examination we find, at the verge of the anus, two large pendulous excrescences; and on introducing the finger into the rectum there is a stricture, about two inches from the anus and just below the stricture at the back part of the rectum, there is ulceration, with considerable hardness around. He was ordered to take an ounce of castor oil to-day, and on the morrow to have the rectum bougie introduced, and to commence taking Ward's paste. He continued this medicine, with some trifling addition, until the 27th of October, when Mr. Jeffreys ordered him one pint of the decoction of sarsaparilla daily, and five grains of blue pill every night at bed time.

Nov. 17. The fleshy excrescences at the verge of the anus were removed to-day; the patient on the whole is much the same.

Dec. 4. The patient was suddenly attacked at seven o'clock this morning, whilst straining at stool, with most excruciating pain at the lower part of the abdomen, attended with a sensation of twisting of the intestines and spasm of the abdominal muscles; the pain was so violent that he rolled about on the floor. Soon after this, vomiting came on, and the pain extended upwards to the stomach; he was directed to take the following draught immediately, viz., one drachm of the spirit of sulphuric æther, half a drachm of laudanum, and one ounce of peppermint-water, and to have the abdomen fomented with poppy fomentations frequently. About nine o'clock the pain in the abdomen had somewhat abated, but there was much tenderness on pressure, and the abdominal muscles still continued very tense; he also vomited occasionally. The draught was now repeated, and a common enema was injected, which, however, returned without fæculent matter, but there was some blood with it; the man was further directed to take an ounce of castor oil. When Mr. Jeffreys saw the patient, about noon, the spasm of the abdominal muscles had abated, but the tenderness of the abdomen had increased, and the countenance was becoming anxious; he brought up the castor oil soon after taking it. Mr. Jeffreys now directed him to take camphor and calomel, of each five grains, with two grains of opium, in two pills, immediately; and also to take three table spoonsful of the following mixture every four hours: one ounce of sulphate of magnesia, one drachm and a half of compound spirit of sulphuric æther, and eight ounces of camphor mixture.—During the afternoon another clyster was administered, which brought away no fæces: towards midnight the pulse became quick and fluttering, the countenance sunk and anxious, and the vomiting still continued.

5. Has had a restless night; the pain is still very severe. Twelve leeches were applied to the abdomen last night, and he has been put into a warm-bath this morning, without any relief. Some blood has passed per anum, but nothing like fæces have passed. The vomiting still continnes, and a brown fluid, of a thick consistence, is ejected. The pulse is quick, 112, weak, and scarcely perceptible; the abdomen is tense, distended, and exquisitely tender on pressure; the patient has not evacuated any urine since yesterday morning; he feels a desire, but has not the power. Mr. Jeffreys attempted to pass the catheter, for a considerable time, but failed.

2 o'clock, P. M. The countenance is sunk, and of a leaden hue; the finger nails are livid, and the feet are cold; the whole body is bedewed with the cold damp sweat, precursory to death. About five o'clock hiccup came on; he then sunk rapidly, and died at seven, P. M.

Post Mortem Examination.

The abdomen having been laid open, the peritoneum, covering the intestine, was found to have been in a high state of inflammation; a large quantity of purulent fluid was discovered, partly in the abdominal and partly in the pelvic cavity. The bladder and rectum, with the sphincter ani, were now removed from the body. On making an incision into the rectum, at its back part, a very extensive ulceration of its mucous membranes was brought into view. The ulceration commencing at the anus, occupied the whole circumference of the gut, for about two inches; above this, was a circle of sound membrane, to about the same extent; the lower edge of which being thickened and contracted, had formed the stricture. Above the sound part, the ulceration had extended upwards, for at least four inches, and in this portion there was an ulcerated opening in the fore part of the bowel, extending through the peritoneal covering into the cavity, of the pelvis. At the sphincter ani there was another ulcerated opening, leading to a cavity, of the size of an egg, between the rectum and bladder. Neither fæces nor blood were detected in the abdominal cavity.

OPERATIONS.

On Thursday, the 22d ult. Mr. Keate performed the operation of lithotomy on a boy five years of age. The external incision was made by the scalpel, and the bladder cut into with the *bistouri cachèe.* The calculus, which was of a moderate size, was readily extracted, and the boy has done well. On the same day, Mr. Brodie removed some portions of necrosed bone from the tibia of a little girl, and Mr. Rose removed the metatarsal bone of the great toe.

ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—The subject of erysipelas having of late much occupied the pages of your valuable publication, and as I acknowledge myself an advocate for sparing the patient, (when it can be done consistently with safety) the pain necessarily attendant upon incisions made in exquisitely tender and inflamed parts: I have taken the liberty of sending you the following case, to which you will oblige me by giving publicity.

Mary Wensley, a woman of a full healthy habit, was seized, without any assignable cause, with active erysipelatous inflammation, (erysipelas vesiculosum) occupying the whole of the leg, attended with the usual symptoms of irritative fever; in visiting her, the limb was directed to be enveloped in a large linseed meal poultice, powerful aperient medicines were administered, and the antiphlogistic system in every respect rigidly insisted on; notwithstandin this, the erythema continued to extend itself until the entire thigh and leg were involved in one continuous inflammatory action; the same treatment was persisted in, with the occasional use of a spirituous lotion; and although at one period the constitutional symptons became exceedingly alarming, the diseased action gradually subsided, and the patient is now in a fair way of recovery.

Bristol, Dec. 12th, 1827. I. EARLE.

Mr. Earle partakes of the common error; this was not a case for incisions.—ED. L.

THE LANCET.

London, Saturday, December 29, 1827.

The coincidence in the selection of topics, and the style of treating them, evinced by Mr. Colles and Mr. Jacob in their recently delivered introductory lectures, was too close and remarkable to be explained by the fortuitous results of chance; and we are, consequently, compelled to presume the intervention of a preconcerted plot, to account for the personation of the two Dromeos in the comedy of Errors, in the progress of performance at the Irish College of Surgeons, by two individuals with minds so differently constituted. Had they exchanged identities, or distilled their lucubrations from the same alembic, they could scarcely have flowed in a more homogeneous stream, or agreed more perfectly in their political flavour. Of panegyric on the College, Mr. Colles was equally profuse as his predecessor; like him, too, he alluded to the contemplated change in the Charter; stated that it was supported by the whole strength of the body, that every exertion was being made with the Government for its attainment, and that the circumstances of the establishment now required, that a *double* system of education be adopted, by which apprenticeship would be optional with the student, as his means or destination suggested; *all* candidates, however, being admissible to an examination. To this announcement of a double system of education, by which we are given to understand the creation of two orders of practitioners of equal professional merits, but of dissimilar corporate privileges, for such is the anomaly propounded in Mr. Colles's discourse, attention shall be principally directed at present. Had Mr. Colles advanced any arguments in favour of the utility of *apprenticeships*, or given any refutation of the reasons so repeatedly urged against the practice, the labour of noticing this part of the subject would have been greatly diminished, as we should then have tangible objects to combat, and an opportunity afforded of examining the validity of the grounds of the opinions promulgated. Of this assistance to the formation of correct conclusions on the soundness of his dogmas, Mr. Colles perhaps prudently deprived his audience; for in no part of his series of abstractions did he, on this occasion, manifest any proofs of the faith that he professed, or venture to reply to the reasoning by which that faith has been so frequently and triumphantly refuted, the whole discourse being a combination of aphorisms, uninterrupted by a single argument. Now, if Mr. Colles conceived that his abstract views on medical education derived sufficient authority from his character alone to convince the public of their conclusiveness, or that the reasons on record against him were not worthy of an answer, he certainly deceived himself in the estimate formed of his own authority, and of the nature of the evidence furnished against his opinions by his opponents. Looking individually to Mr. Colles, it would be rather difficult to discover the cause of so much self-sufficiency; for what has he done professionally, or otherwise, to justify him in demanding the unqualified belief of the public in his statements, without the usual formality of convincing their understandings through the instrumentality of reason and argument? What addition to the scientific reputation of the body to which he belongs has he made? What personal sacrifice has he offered to the advancement of its interests? How has he acquired such an ascendency of character, that the College would consider him an exception to his species, and like the Areopagus with the Grecian philosopher when about to ratify his asseverations by an oath, unanimously declare that his word is sufficient, without any explanation of its truth? It has hitherto escaped observation, that the powers of his mind were equal to the condensation of evidence into axioms; his most ardent admirers would hesitate to represent his learning as qualifying him to become an oracle on this or any other question; and we certainly never heard that he was inspired earlier than six o'clock in the evening, an hour which emancipated all mankind from the fetters of logical precision in their enunciations. In no personal respect, then, can the cause of his dispensing with the custom of convincing his audience in the usual manner be discovered; but, on the contrary, this duty was imperiously demanded by the circumstances in which he was placed. Arguments against his opinions were well known by him to have been on record; these arguments he was also aware had made a considerable impression on the public mind, from the truths which they contained; and, besides their specific value, were supported by a combination of scientific, literary, and liberal qualifications in their author, to which Mr. Colles could possibly lay no claim. The question of apprenticeships moreover is one purely of evidence, which every individual, even the merest tyro in the profession, is capable of examining; and should be decided by the concurrent views entertained of its expediency, after it had been thoroughly discussed. It is possible, nay, we are willing to admit that Mr. Colles felt all this, and that finding it easier to dogmatize than to reason, or magnanimously to allow the validity of the objections made against the system which he advocates, shrunk from the task of defending a scheme of education in public, which in private he is even said to condemn. What therefore must the recommendation of a proposal by a man be worth, who artfully conceals the dictates of his better judgment on an important measure of this kind, and makes himself the facile instrument of accomplishing the selfish ends of a few hospital surgeons in Dublin? Why, at least, not openly and honestly avow the motives of the party of which he became the organ; and if it be a sufficient justification of the measure, that few individuals must make fortunes by apprentices, candidly state these reasons, that they may stand or fall by their own merits? For our own parts, we see nothing in this double system of education, but the germs of professional degradation, and a further increase of corporate corruption in the College. The precedent of the Dublin College of Physicians, and the partiality displayed towards *hospital apprentices* in Lincoln's Inn Fields, is conclusive testimony of the practical consequences which must result from the adoption of the measure. The usurpation of the corporate rights of the latter institution, effected solely in consequence of a disparity of privilege, by twenty-one irresponsible agents, has notoriously excited the great body of English surgeons to appeal to the legislature, for the recovery of those immunities which are about to be taken in a similar manner from the future practitioners of Ireland. The meditated representations of both bodies to Parliament, must certainly appear to the latter in rather an extraordinary light; the one, like the Helots of Sparta, rising in rebellion against their masters; the others, like the nation conquered by Alexander, and presented with their freedom, seeking as a favour not to be any longer burthened with professional liberty. Well might one of the classical members of the "Collective Wisdom" exclaim, "Qui fit, Mæcenas," &c., on witnessing so striking an illustration of the remarks of the satirist on the diversified discontents of mankind. If we look beyond the narrow limits of Great Britain and Ireland, we find the usage of France, Germany, Italy, and the Unitad States, at direct variance with the proposal of introducing this system into effect in the Irish surgical profession. The students of all these countries it is allowed, attain a superior knowledge of the healing art, than even Mr. Colles' own apprentices; and unless he can demonstrate some morbid peculiarity in the Irish brain, to prevent the possessor from learning without the sanction of the stamp office, and paying 150 guineas, we can see no good reason why the exaction should be continued, leaving Mr. Cusack's exchequer of course out of sight. But admitting that a secondary class of practitioners is called into existence as an expedient, first, to satisfy the demands of admission to an examination made on the College; and secondly, by the accompanying clause, to exclude them from office and emolument, that the whole corporate powers of the institution may be thus more effectually confined to a few hospital surgeons resident in Dublin.—Can Mr. Colles be so ignorant of human nature as to suppose that this disfranchised class of men, who must mutually become, for obvious reasons, the majority of the surgical profession in Ireland, will be contented with an arrangement which deprives them of the power of rising to that eminence which the talents of many of them must necessarily entitle them to; or that, uniting in self-defence at some future but not distant day, they would not successfully exert themselves in the recovery of their professional and natural rights? He might as well expect that the earth would cease to perform its revolutions, as that men, under such circumstances, would remain quiescent in their degradation. Both he and his party in the College have to learn a secret of which they have not as yet voluntarily shown any intelligence in their announcements, that the profession in future must be governed by those laws only which the majority enact; for, what is the concession made at present, and advocated by Mr. Colles himself, of admitting all candidates indiscriminately to an examination; but the commencement of the operation of this principle of the power of public opinion—a symptom of the infant might of this lately developed truth—which increasing in strength with its duration, must ultimately terminate the reign of monopoly, put an end to the bickerings and low cabals which disgrace a respectable and important profession, and level all distinctions between its professors except those which nature and superior exertion confer.

We believe the day is not far distant when the three British Colleges of Surgeons will be governed by precisely similar laws, and when the members of *either* College will be entitled to the immunities and privileges of the whole.

The draft of a petition, to be presented to Parliament by the graduates of Scotch and other Universities, which we have this week inserted, is understood to emanate from the class of practitioners styling themselves "Independents." It is a document well worth attention, not only because it develops the sentiments of this particular class, but because it establishes a well-marked boundary of separation between those who seek medical reform for the sake of public and professional interests, and those who would make the question of reform subservient to the advancement of their private interests, or to the gratification of their personal vanity.

The absurdity of distinguishing, as far as the principles of medical science are concerned, between the two departments, as they are called, of surgery and medicine, is acknowledged by every professional man capable of reflecting on the subject. As a mere matter of classification it may be convenient to separate diseases which may be cured or alleviated by manual operations, from those which do not admit of cure or alleviation by such means; but to suppose that a different kind or degree of knowledge, or attainments of a different description, are required for the treatment of the two classes of diseases, is a *niaiserie* worthy the Society for the Propagation of Darkness. The distinction attempted to be made between surgical and medical cases, cannot be carried into practice; for how are we to define the limits, where are we to draw the line between such cases? Tetanus may or may not be the consequence of an external injury; is it a surgical case in the one instance, and a medical one in the other? Fever is supposed to be the *peculium* of physicians; but does fever cease to be a physician's case on the occurrence of any symptoms which may require some further use of the practitioner's hands, beyond that of feeling a pulse or touching a fee? Is the subject of typhus, for instance, to be abandoned by the *pure* physicians, on the appearance of an abscess; or is the *pure* surgeon, in case of fever supervening on an operation, to turn over his patient to the *pure* physician? But if the distinction between surgical and medical cases be absurd, still more ludicrous is the notion which besets the "Independents," that practitioners devoting themselves to *medical* cases, are a more dignified class of persons than SURGEONS. Disease, as far as the patients are concerned, is, God knows, a notable leveller of distinctions. The *gout* or *scrofula* of a prime minister differs not from the gout or scrofula of a prime minister's valet; and stone is characterised by the same symptoms, whether the bladder infested by it belongs to a barber or a bashaw with three tails. But though disease levels all distinctions among patients, it creates and sets up distinctions, according to the "Independents," among medical practitioners. If, for example, a patient have aneurism in his ham, which may be effectually cured by an operation, this is a surgical case, to be left to the care of that subordinate practitioner, the surgeon; but if the patient have aneurism of the heart or the aorta, this is a medical case, to be superintended by a more dignified practitioner, to wit, the physician. "The lieutenant before the ancient" exclaim the "Independent" practitioners, "ever while you live, the physician before the surgeon." Let surgeons throughout the kingdom regale themselves with a perusal of the following delectable passage.

> "15. In the whole course of proceeding followed by this college, your petitioners can discern no motive having for its object the public good, or the advantage of the profession; its unvarying tendency being, to establish within the profession an odious monopoly,—giving rank exclusively to those who can show no claim to professional superiority; attempting to make the largest portion of British Physicians outcasts and aliens in their own country, and, by the influence of these signal abuses, degrading the whole profession, and exposing it to the encroachments which the *subordinate departments* have so successsfully made on it."

And this is the language of men approaching the Legislature, with a view of reforming the abuses and absurdities which disgrace the medical profession! *Subordinate departments*! And to whom are the surgeons of England declared to be subordinate? Why, to the graduates of Scotch universities; to men who have either bought their diplomas for the sum of fifteen pounds—the price whereat the Universities of Aberdeen and St. Andrew's had sold their certificates of ability, to all comers or senders; or, at the best, to men who have graduated at Scotch universities, where undoubtedly some opportunities are afforded of acquiring medical information; but where, up to a very late period, human dissections formed no part of their *curricula*, and where candidates are seldom or never rejected for incompetency. Even the old ladies of Apothecaries' Hall once rejected a candidate for incompetency. The case is upon record. SNEAK, in the farce, once ventured to insist upon a "bit of the brown," and the old ladies of Apothecaries' Hall once rejected a candidate for incompetency! But the vigour of the old dames, like SNEAK's, was of short duration; they soon relapsed into imbecility, and admitted the candidate on a second trial, although, even on his final examination, he could not tell the difference between his *sinciput* and his *os calcis*; that is to say, although, in point of anatomical knowledge, he did not know his head from his heels.

We recommend to the "Independents" —to such of them at least as are capable of profiting by the recommendation—an attentive perusal of the letter which follows this article, written by one of the *subordinate* class of practitioners—Mr. Lawrence. It may teach them, that talent is the only legitimate title to medical rank, and that, in a scientific profession, no distinctions should be recognised except those which are founded on intellectual superiority; and when they have learned, that in the medical profession rank should be synonymous with ability, they may see the absurdity of calling upon the legislature to recognise higher and lower, or, which is the same thing, competent and incompetent practitioners, and to "arrange" the profession into departments according to the greater or less degree of skill possessed by its members. They may see, that the only rational basis on which the profession can be established is that of equal professional attainments—no matter when, where, or how acquired—among all its members, to be ascertained by the only adequate test of qualification—a searching, efficient examination.

The public have long scouted mere verbal grades of medical distinction, and have looked, not to the assumed rank, but to the actual ability of the practitioner. Hence the encroachments absurdly complained of by physicians, who cannot persuade the public of their ability by assuring them that they belong to a dignified class of practitioners. The public have moreover had the benefit of an excellent example in the highest quarter, for the Sovereign himself has, with his usual tact and discrimination, distinguished by his special countenance and favour men belonging to what are denominated by the "Independents" the *subordinate* departments of the profession.

MR. LAWRENCE

ON THE TREATMENT OF PHLEGMONOUS ERYSIPELAS, IN REPLY TO MESSRS. COOPER, TRAVERS, AND BUTTER.

To the Editor of The Lancet.

Sir,—Although Mr. S. Cooper has thought fit to transfer the discussion on the treatment of erysipelas from the meeting-room of the Medical and Chirurgical Society to your pages, after neglecting the opportunity which the renewed debate afforded him, of stating his sentiments when I could have immediately replied to him; and although Mr. Travers, violating the first rules of courtesy and fairness, and unmindful of that impartiality which it was particularly incumbent on him, as President, to have observed, spoke, after I had left the room, on one point of the treatment recommended by me, with a freedom of comment closely bordering on personal disrespect; it was not my intention to have noticed either the letter of the former, or the reported speech of the latter. I had determined to let the matter rest until the printing of my observations should enable the profession to judge correctly of my opinions, respecting the pathology and treatment of erysipelas, and to estimate the facts from which they have been deduced. I should thus have afforded Mr. Cooper the gratification of having the last word, on which he seems, like many disputants, to set a high value. However, the letter of my former pupil and friend, Dr. Butter, in No. 224 of The Lancet, absolutely requires notice, and thus compels me to alter my determination. For, if I had replied to the Doctor's letter, and left the prior attacks unanswered, it might have been inferred, either that I admitted their justice, or felt incapable of repaying their authors in their own coin.

I have always respected the energy and industry of Dr. Butter, and esteemed his character: no unkind or unfriendly feeling has ever entered my mind towards him, and I disclaim all intentional disrespect and unfairness. From the mode in which he mentions that he had directed his bookseller to send me a copy of his work, I am led to fear that I did not acknowledge the present; if so, I apologise for the omission, and tender my sincere though tardy thanks.

Dr. Butter must have written his letter under the influence of extreme irritation; for he seems to have forgotten, that two opposite charges cannot both be true. The mutually contradictory nature of the accusations in the following quotation, will be immediately apparent: "I am the more surprised not to find some notice or mention made of this book by Mr. Lawrence, who, by your account, has read before the Society a most elaborate, long, and practical paper on erysipelas, *availing himself obviously of the information in my book, and yet studiously avoiding any mention of it*; and when his attention was drawn to it by an anonymous speaker on the 27th of October, then he was silent on its contents. From one of two motives must this silence, on the part of Mr. Lawrence, have arisen: 1st. Either that he is or was ignorant of the work itself; 2dly. Or, *that he inculcates a practice opposite to that advocated in my book*." If the latter supposition were true, which it is not, I should not feel it necessary to offer any explanation or defence. As to the former, I will only say, that if any individual, after reading Dr. Butter's letter, or a few pages of his book, should think it possible that I could steal his cases, his reasoning, or the smallest portion of his scientific or literary property, I will then think of seriously defending myself, and not till then. Dr. Butter continues: "if he adopted and recommended a practice diametrically opposite to that which the deduction from this book justified, why did he not candidly notice it, admit the value of the cases," &c. The Doctor's notions of medical reasoning are most extraordinary; he thinks his cases ought to have been quoted in support of a practice diametrically opposite to that pursued in them! What would he have expected in the converse of this case? that is, in the supposition of my recommending the same treatment which he himself advocates? For this, as I proceed to show, is the fact. If Dr. Butter had allowed himself to become cool, and had then again perused my observations reported in THE LANCET, No. 221, he would have seen that I carefully separate what he has, I hope unintentionally, jumbled together; viz. the treatment of simple and phlegmonous erysipelas. I have expressly stated that bleeding will not stop the latter, and that its course may be arrested by incision through the affected structures; this is precisely the inference to be drawn from Dr. Butter's book, and the only useful information that I can extract from it. The case of Reeves, which is the only one seen by Dr. Butter himself, was treated precisely according to my views; that is, by incision through the inflamed parts;* the sudden relief and the rapid recovery of this man, form a strong contrast to the fatal result of twelve out of the fifteen cases recorded by Dr. Butter. The inflammation "occupied the small part of his left leg, from the inner ancle to the calf," and the incision exceeded five inches in length. Suppose the inflammation had occupied the entire leg, or the leg and thigh; would Dr. Butter have made an incision of five inches only? if he had, he would have benefited his patient very little. Would he not proportion the extent of his incision to that of the local mischief, which it is intended to relieve? The Doctor speaks of my recommending an incision of fourteen inches, as if I had advised that specific length in all cases! I cannot regard this as an unintentional misrepresentation; it is too glaring to be accounted for even by the irritation under which the letter was obviously penned. I have recommended generally "the practice of making an incision through the affected textures;" and I have afterwards said, "the longest I have made in any case was fourteen inches." Let it be remembered, that I have treated several patients, in whom the greater part of the upper or lower extremity, or the entire limb, has been affected.

If Dr. Butter could have repressed the ebullition of his feelings until the printing of my observations and cases, he would have found that I take notice of his publication, and consequently, that the very ground of his loud and inconsistent complaints is imaginary. But if I had not, he would have had nobody to blame but himself; for never did an author succeed more completely than he has done, in concealing the subject of a book by its title page. Could any one have fancied or even dreamed, that a disquisition on phlegmonous erysipelas would be sent forth to the world under the title of "Remarks on Irritative Fever, or Plymouth Dock-yard Disease?" *Irritative fever! Plymouth dock-yard disease!!* and these associated by an *or*; one unmeaning expression employed to explain another! When Dr. Butter takes up his pen again, let him endeavour to affix some clear meaning to the phrases *irritative fever*, *irritative inflammation*, and *constitutional irritation*; let him show, if he can, what he has not yet shown, that they have a meaning, and that they mean something which is not included under other familiar expressions.

This book contains the details of fifteen cases, the author having seen only one of them himself; yet he modestly states, that "they will be found more useful, I will venture to affirm, in settling the disputed treatment of erysipelas, than any given number of cases ever laid before the public." I can by no means agree with him in this opinion. They do not represent the ordinary course of erysipelas; it will be sufficient to say, that twelve patients died out of fifteen; and yet the circumstances occasioning the unusual mortality, are not apparent. The value of these histories is much lessened by the circumstance of the author not having seen and described them himself, but been obliged to collect the facts from others, partly even from relations and attendants, and at some distance of time from their occurrence. Having been at the pains of blowing up these few cases into an 8vo. volume of 300 pages, the Doctor estimates their importance by the trouble he has taken; he would have acted more wisely if he had reversed the proceeding; if he had settled the value of the cases first, and then determined the amount of labour that might be advantageously bestowed on them. Having neither leisure nor taste for this inflating process, I could not think of following the Doctor's example, and am firmly persuaded that this kind of literary soufflé would have been deemed very unsubstantial and unsatisfactory fare by the Medical and Chirurgical Society.

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* My observation refers merely to the employment of this particular measure. After the incision, bark and ammonia were freely given, and the patient was allowed porter, wine, brandy, and broiled chops. The cases which I have treated neither required nor admitted such means.

Dr. Butter is as vain of his authorship as a beauty of her person: the mere appearance of insensibility to their charms is resented as an affront by the fair sex, and in the same way, the Doctor is highly incensed because he is not noticed. The sentiment of self-esteem bubbles up at every point through his whole letter, with a sparkling freshness that is quite delightful; the spring is too copious to brook restraint, and runs over on all sides. The undisguised and open exhibition of this feeling, in its genuine state, makes the letter much more amusing than the book. We are promised another communication, which I hope will be exactly in the same style. I beg the Doctor will not spare a single severe remark on myself. Indeed, independently of the amusement which his letter afforded, the smart of his castigation was effectually removed by the complimentary emollient with which he buttered me over, and for which I thank him.

I must, however, before parting, correct two or three misapprehensions under which the Doctor labours at present. A knowledge of the commonest points in practice is not confined to the classic region of Plymouth and Dock. We knew in London, before the Doctor's letter was published, "the necessity of bleeding some patients with erysipelas, particularly the gross and full;" and the "propriety of hesitating to bleed thin and cachectic people."

Not contented with criticising and reproving my opinions and practice, the Doctor has given me a friendly hint on a matter of taste. In his hurry to appear before the public, he has jumbled and confused every thing, and thus has given me the credit of Mr. Brodie's phrase of "*putting out*" erysipelas and typhus. "These figurative expressions," he says, "ill suit the sober and variable practice of physic." Thus it is actually written, Mr. Editor, *sober* and *variable*! But he cannot be consistent for two sentences together, and immediately commits the very fault he has reproved, observing, that "erysipelas is not to be cut down with the lancet, *like an olive branch*." I beg to apprise him, that we do not use our lancets in London to "cut down olive branches;" a proceeding which we should deem as unprofitable and unwise as the attempt to cut blocks with a razor. Lastly, patients with compound fractures in London do not in all or nearly all instances lose their lives. "Almost every case of compound fracture does well in the country," says the Doctor; "*but in London it is a most rare occurrence to find a person surviving such an accident*."* I hope that this extraordinary assertion is not a sample of his average correctness; if it is, he certainly will not be often quoted as an authority for matters of fact.

When Mr. Hutchison first recommended incisions in the treatment of phlegmonous erysipelas, the practice was hastily and intemperately condemned by Mr. S. Cooper, although he had no experience of it, and appears to have comprehended very imperfectly the kind of cases in which it ought to be employed, and the effects it is capable of producing. I cannot perceive that he has changed materially in either of these respects. Having once dogmatically decided on the point, he seems to have thought it essential to his dignity, as an author, to maintain his original opinion, which he has done with great firmness and little scrupulousness in selecting the means of opposition. His letter, printed in THE LANCET, No. 218, contains a complaint of inaccuracy in your report of his observations at the Medical and Chirurgical Society; yet he has shown no inaccuracy of any consequence, and we therefore naturally conclude, as you have suggested, that the *brevity* of the report was the true cause of dissatisfaction; that the record of the observations did not correspond in length with Mr. Cooper's notion of their importance. Of the several speakers on the same occasion, there certainly was not one who had less reason to complain of your report than himself. Indefatigable in his opposition, Mr. Cooper has sent you another letter (No. 222), in answer to your report of my reply. His quiver is not yet exhausted; for he announces in the last letter his "intention to enter more minutely, at a future opportunity, into a critical examination of this practice; and it will then be seen, that I am very far from having brought forward every argument capable of being urged against it." Mr. Cooper imitates the example of those generals who place their chosen troops in the corps de reserve, and keeps back his strong arguments for the great effort. Although this will account for the weakness which I shall point out in the attempts be has hitherto made, and may be regarded as a good specimen of tactics, I cannot consider it a handsome mode of treating either the Medical and Chirurgical Society, or your readers.

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* Remarks on Irritative Fever, p. 176.

In allusion to the practice recommended in my paper, Mr. Cooper says, "Few proposals, supposed to be new, are now ever made in surgery, *bad as they may be*, without some little contest taking place about the honour of having first suggested them." And he concludes, "no doubt many cases of severe phlegmonous inflammation might have a large cut made in them, and yet the patients recover [Query, Is it not a new proposal to make a cut in a case?]; *but escapes, notwithstanding bad treatment*, should always be discriminated from *cures* promoted by truly efficacious measures." Lancet, No. 222. I entertain a due sense of the flattering compliment conveyed in these sentences, and think it will be most suitably acknowledged by imitating the example of plain speaking, which they hold out.

I must begin by correcting Mr. Cooper's first statement, and proving to him, or at least to your readers, that a new proposal may be so bad, so dangerous, so extravagantly absurd, as to remove all fear of contest for the *honour* of priority. It has been coolly proposed, Mr. Editor, in the case of an injury of the head, attended by symptoms supposed to indicate compression, but not accompanied with wound or fracture, to bore a hole over the track of the spinous artery, (in doing which, the thick part of the temporal muscle must be cut through and detached—but that is a trifle to what follows,) in order to see if there is any extravasated blood under the bone, and if no blood should be found there, to bore another hole, in the hope of finding some on the opposite side! Would not you, Sir, venture to guarantee to the author of this perfectly novel proposal, uncontested possession of all the *honour* that may accrue from it! You will find it in a book entitled "The First Lines of the Practice of Surgery, designed as an *Introduction to Students*, and a *Concise Book of Reference for Practitioners*.* It may reasonably be supposed that this proceeding has been employed on many patients, either by the author or by the students and practitioners, to whom he has been a guide. As to the cases which have thus had—not "a large cut," but—a double boring made in them, without a fatal result, if indeed there be any such;—in which of Mr. Cooper's two classes shall we arrange them—the "escapes" or the "cures?"

The earnestness and pertinacity with which Mr. Cooper combats the practice of incisions in phlegmonous erysipelas, might at first be supposed to depend on copious personal experience of their pernicious effects; but this is not the case; and it is doubtful whether he has even seen a single instance of the treatment; so that his continued opposition rests on no better foundation than his original inconsiderate censure. He has, however, endeavoured to supply from other quarters the deficiency of his own experience; and has gleaned every particle of unfavourable evidence with great zeal and industry, and very little nicety of selection. It will be necessary to submit to a "critical examination" the matter which he has thus collected. In his first letter (Lancet, No. 218), in order to prove, as he phrases it, "that the practice is not infallible," he mentions three cases; in one of which, "where the knife had been freely used in an early stage of the case, in the manner suggested by Mr. Hutchison, the patient recovered with great difficulty, and not without sloughing of the greater part of the integuments of the arm." In his second letter, he gives the following further details of this case: "The fact is, that the case treated on Mr. C. Hutchison's plan was seen by me, under Mr. Vincent, in St. Bartholomew's Hospital. It was not an instance of mere sloughing of the cellular substance after the incisions, as Mr. Lawrence supposed, but a case in which a great part of the integuments of the arm was destroyed, the limb permanently crippled, and the patient's life nearly lost. *It is not for me to pronounce what share the incisions had in bringing on so unfavourable a termination*; and the only inference which I presume to make is, that the practice, *severe as it is*, will sometimes fail, like all other means, in arresting the progress of the disorder." I certainly must express my concurrence in the latter profound remark, and my belief that it is equally applicable to all other means of treating all serious diseases. I doubt whether even the *mild* practice of double boring the skull to search for blood will form an exception. Now, Sir, if Mr. Cooper, in his second letter, could not pronounce what share the incisions had in bringing on so unfavourable a termination, why did he boldly bring forward the case in the first instance as an example of the bad effects occasionally resulting from incisions? No one can doubt that he would have ascribed the sloughing to the incisions, had it been possible for him to do it with any plausibility: since he has not screwed his courage up to this point, we may safely presume to infer that they did not cause it, and consequently that the alleged fact is totally irrelevant to the question at issue. Mr. Vincent has informed me, that in this case, which happened four or five years ago, instead of *the knife having been freely used*, only *small punctures* were made, and that he has seen no reason to ascribe sloughing of the integuments, or any other bad consequence, to incisions or punctures in any cases that have been under his treatment.

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* As some readers may be incredulous, the *ipsissima verba* of the proposal are subjoined: "Even when there are no external appearances to determine the place in which the trephine should be applied, and the above urgent symptoms prevail, it may still be proper to perform the operation. Perhaps in the midst of such obscurity and danger, it might be justifiable to make a small perforation in the course of one spinous artery of the dura mater; if this should not detect the seat of the extravasation, another perforation might be made on the opposite side of the head."—Third edition, *thoroughly revised*, *carefully corrected*, &c. p. 260.

The two others on which Mr. Cooper lays so much stress, are cases of which I have myself furnished the details to the Society. In one of them, Mr. Cooper roundly asserted, "that the patient never revived from the shock communicated to the system by an enormous wound on the erysipelatous parts," as if he had personally witnessed and known the fact. In his second letter, he quotes, for this opinion, the medical gentleman who attended the case. I must observe, that it is not always easy to determine the cause of death, especially when we are deprived of the light which examination of the body is capable of affording; and hence it is not uncommon for differences of opinion to exist even among those who have seen the progress of a disease. In the unfortunate case, about which Mr. Cooper speaks with so much certainty, I feel myself quite in doubt on this point. The publication of the full details, which I have communicated to the Society, will enable the profession to judge: in the mean time, I refer to the few particulars contained in your report of my reply at page 321, to show that Mr. Cooper's statement of "the patient never having revived from the shock," &c. is by no means correct, and that the evidence adduced by himself has been received without any of that "critical examination" which he threatens to employ against the practice of incision. I may observe further, that Dr. Back saw this gentleman after the incisions had been made; not having had the pleasure of meeting him, I do not know his opinion, but I understood that he did not think unfavourably of the case.

In the instance, where syncope and death ensued from bleeding after incisions (see LANCET, vol. xii. p. 669), the fatal event is obviously referrible to circumstances, which may in future be avoided; it was not necessarily connected with the operation. The greater caution suggested by this very case would effectually guard against the repetition of such an occurrence: nothing could be easier than to limit the loss of blood to a few ounces, or to prevent it altogether. An opponent, anxious for the cause of truth, would have scorned the paltry triumph that could depend on such a case as this. Mr. Cooper, however, is so poor in facts, that he cannot afford to be nice, and thankfully accepts the smallest donations. Of this humble disposition he has given a strong proof in his second letter: "To these bad cases may be added a fourth, which I might have visited; but as it was announced to me that the patient was in articulo mortis, and some business required my attendance in another direction, I declined to be in at the death." As this statement proves nothing, it must have been introduced for the sake of the concluding joke. The very witty and perfectly original remark about being in at the death may be elucidated by a former part of this letter. One who has for many years practised double boring the skull in search of blood, must have been very often *in at the death;* so often, as to become rather tired of the spectacle, and a little nervous. The list of deaths will be much enlarged if the students and practitioners, to whom the practice has been recommended, should have adopted it. What a frightful band they would make, appearing as bloody-headed spectres in a troubled dream, each pointing to the fatal holes in his temporal fossæ!

Mr. Cooper has attempted to show from his own practice, that incisions are not necessary in phlegmonous erysipelas. "I also mentioned," he says, "that seven cases of erysipelas had been attended by myself, in the course of the last eight months; and though some of them were of a very severe form, corresponding in every respect to phlegmonous erysipelas, they all had a favourable termination; and that, in only one or two of these examples, had it been necessary to make a small opening or two, for the discharge of matter."—p. 180. I must remind Mr. Cooper, that the logicians of the dark ages viewed general assertions with great suspicion. Their distrust has passed into a maxim, which may afford a salutary caution; *dolus latet in generalibus.* If, therefore, Mr. Cooper wishes to strengthen his arguments by the support of facts, he must present them not in a mass, but in detail, with the particulars of time, place, and other circumstances, so as to enable others to judge of them as well as himself. After the foregoing specimens of the mode in which he sometimes allows himself to deal with facts, he must expect that his cases will be rigorously scrutinised. Of the numerous histories which I have presented to the Society, hardly any depend on my own testimony only; the majority have been derived from St. Bartholomew's Hospital, and have been, in great part, noted by my pupils, many of them having been seen both by members of the Medico Chirurgical Society, and by other practitioners. I may add, that the notions which I imbibed from my teachers, respecting the nature and treatment of erysipelas, were quite different from those I now entertain; the latter having been entirely formed in opposition to the prejudices of education, from the facts which have come under my own observation. I have not set out with declaring an opinion, and then sought facts to support it.

I now take leave of Mr. Cooper, observing only, that although " I am yet very far from having brought forward every argument capable of being urged " on the occasion, I do not mean to enter into any further " critical examination" of his opinions or statements, being satisfied with having now enabled the profession to estimate them at their just value, and not designing from this time forth, either to quote or allude, in any way, to what he has written on erysipelas.

I profess myself a friend to free discussion, and consider that the utility and interest of the Society's meetings will be greatly promoted by the allowance of free comment on all that may be brought forward. Mr. Travers, like any other member, might with perfect propriety have addressed the Society in opposition to my opinions and practice, in terms as strong as he might think proper, before I made my reply. But I think that he forgot himself when he condescended, in his character of president, to indulge in an intemperate sally after I had replied, and had left the Society on the supposition of the debate being closed. The proceedings of our Society are not like those of a court of law, where it is necessary that a learned person should preside, to arrange, compare, contrast, and reason upon evidence, and show the application of law to facts, for the guidance of the comparatively uninformed jury. The numerous professional persons who composed the meeting of the Society, were as well able to judge of the debate as the president. But, if he chose to assume the functions of judge, he should not have forgotten the essential attribute of impartiality, and have allowed himself to espouse one side of the question with the warmth of an advocate. I certainly did not send my observations to the Society for his judicial decision; had such an idea been started, I should have objected to the competency of the tribunal. A judge should be clear headed, cool, impartial; he should possess sound judment, matured by long experience.

Mr. Travers stated, according to your report, the accuracy of which has been confirmed to me by those who heard what he said, that " as to carrying an incision along a limb to the enormous extent of fourteen inches, or even half that length, it appeared to him to be a practice better fitting the dark ages of surgery than the present times. It was a practice terrible to the patient and revolting to the by-standers. He felt it his duty to protest against making such long incisions, as had been recommended, as an unnecessarily severe, alarming, and dangerous practice." Such then are the modern lights of surgery! Important points of practice are to be determined, not by the results of experience, and the dictates of reason, but by the opinions of patients and bystanders, that is, of nurses, friends, and domestics. The President does not even avail himself of the cool and deliberate opinions of these excellent judges, but appeals to their terrors, to the natural dread of pain, to the anxiety and agitation of those around, and their alarm at the unusual sight of blood. How would this sentimental affectation have been scorned by the manly sense of the ancient masters in our art! I can venture to assure the President that the horrors of this treatment are much exaggerated by his lively imagination, which, on this occasion, has completely outrun his judgment. He will find, on cool reflection, that a superficial cut, which is completed in a few seconds, gives much less pain than many an operation which he would regard as perfectly trifling. When he speaks of the enormous extent of an incision, fourteen or seven inches long, does he reflect on the length of the cut through the skin in amputating a thigh or a leg? It is not, however, worth while to examine such remarks seriously. Most of the cases which I have treated, have been seen by the numerous students of St. Bartholomew's, including many individuals whose knowledge and experience render them very competent judges. Many of them have also been observed in their progress by physicians and surgeons, among whom I may name Drs. Tweedie and Crawford, Messrs. Stanley, Arnott, Welbank, Mackelcan, and Duncan. I will confidently appeal to any or all of these witnessess, first, as to the alleged severity and terror of the treatment, and secondly, on the more important point of its efficacy in terminating the sufferings of the patient, and arresting formidable disease.

I have twice seen the practice adopted in the cases of surgeons, and with the most favourable results. Their testimony on such a question will possess a degree of value, which does not belong to that of ordinary patients; and, as the cases admit of being shortly stated, I will subjoin them.

A general practitioner, residing in my neighbourhood, consulted me on the 8th of October for an inflammation of the hand and fore-arm, which had commenced on the third, and had been treated with leeches, fomentations, and poultices. The whole back of the hand was elevated into a very considerable, tense, and firm, red swelling; the wrist and fore-arm were swollen and red to the elbow. The pain of the limb was excessive, and now extended to the axilla, being accompanied with the usual constitutional symptoms. I made an incision through the back of the hand, from the wrist to the fingers, and a shorter transverse one, joining this at right angles. The hand was immersed in a large basin of warm water, to encourage the bleeding, when, in about two minutes, the patient said that the pain and tightness were gone, and that he was perfectly at ease. I advised 18 leeches to the fore-arm, fomentation and poultices, rest, antiphlogistic regimen and medicine. "On the 10th of October," says this gentleman, who has furnished me with an account of his case, "I was enabled to extract (with the hand that had been inflamed) a molar tooth for a patient; nor has there been the slightest sign of inflammation since, though I have had occasion to use considerable exertion."

The other case, that of a medical student, who had pricked his finger in opening a body, was under the care of my colleague, Mr. Earle, who has described it in detail in the Medical and Physical Journal, January 1827. This gentleman was taken ill in the house of his father, an experienced and judicious practitioner, and attended throughout by his brother, also in the profession, as well as by two very sensible and well-informed professional friends. Pain came on in the finger during the night after the accident, and the first phalanx had lost its vitality in the course of the next day. In spite of leeches, venesection, aperients, opiates, antimonials, &c. &c. inflammation spread from the finger to the shoulder, with the most excruciating pain, and the worst constitutional symptoms, such as entire want of sleep, delirium, brown tongue, altered countenance. On the sixth day, Mr. Earle had informed me of this gentleman's danger, and that he did not expect him to recover. On the eighth day he said that he was much worse, and he requested that I would see him, not with the expectation that any thing could be done, but as a satisfaction to the friends, and some diminution of his own responsibility. I found him with the entire upper extremity, as far as the shoulder, swollen, tense, firm, and of a deep red, with a rapid pulse, most anxious countenance, and an assemblage of the most unfavourable symptoms. I told Mr. Earle, that the practice of incisions offered the only chance of saving life; that I did not consider the case as hopeless. He said that he had had no experience of the treatment, but immediately acceded to my proposal, and made three incisions, one in the arm and two in the fore-arm. The limb, having been laid in a folded sheet, was covered over by the bed-clothes, when, after sometime, the patient was observed to become faint. It was now found that he had lost an enormous quantity of blood, and that a small artery required a ligature. The blood was carefully collected in a wash-hand basin, and was estimated by the patient's father at three pounds and a half; he feels certain, that it exceeded three pounds. Before the incisions were made he had given up all hopes of his son's recovery; so complete and sudden was the relief they afforded, that in six hours after he had discarded all ideas of danger. The cure, indeed, proceeded from this time uninterruptedly towards recovery, and I believe that the motions of the hand and fingers were perfectly restored. The patient, his father and brother, Mr. Earle, and the immediately attendant professional friends, are all convinced that he owes the preservation of his life entirely to the incisions. Mr. Wardrop saw the case a few days after they had been made. The very great loss of blood in this case took place without those immediately about the patient being aware of it. That the hæmorrhage ought to have been stopped earlier is almost too obvious to require mention.

To any gentleman who may be disposed to verify these facts, I shall be happy to give the necesssary references. They strikingly illustrate the most important effect of treatment by incisions; viz. its power of suddenly arresting the inflammatory process. I have seen severe phlegmonous erysipelas of the entire leg and thigh, when the aspect of the limb from enormous swelling, general redness and vesication, was really appalling, suspended in the same decisive manner, by a single incision along the middle of the calf.

Mr. Travers affirms, that this practice is only fit for the dark ages of surgery. It is probable that differences of opinion will ever prevail respecting light and darkness, as well as on all other matters which are to be estimated by human sense and judgment. I need not remind Mr. Travers that there are morbid states of the eye, in which imaginary lights are seen; in which, although the figure, magnitude, colour and surrounding relations of external objects, are distorted, perverted, or strangely confused, the patient is even annoyed by sparks, coruscations, or offensive luminous glare. Do we not know, that there are also false lights of the mind, which confound and bewilder, instead of assisting the judgment? Under their deluding influence, imaginary phantoms may be regarded as real existences, while the forms and proportions of familiar objects are altered and mistaken, and they are forced into unnatural and discordant union. To a heterogeneous assemblage of this kind, which presents no intelligible sense to the minds of others, a medical observer may give the name of constitutional irritation, and contemplate the fantastic creation of his own brain until he believes in its independent existence. He may even go so far as to talk of the reflexion of constitutional irritation;—the reflexion of a non-entity!—the shadow of a shade!

I will make a proposal to Mr. Travers, which he cannot, or at least ought not, to object to. Instead of writing a book on *reflected irritation*, let him compose a communication on the same subject for the Society, and allow three nights for its examination, as in the case of my paper on erysipelas. We shall certainly have crowded meetings, and ample discussion, in which the question he has started, of surgical light and darkness, may be fairly brought to issue.

I remain, Sir,

Your obedient servant,

Wm. Lawrence.

18, Whitehall-place, 15th Dec. 1827.

P. S. In the present volume of the Lancet, at p. 416, the following passage occurs, in the report of a case of fractured skull, treated by Mr. Travers:—"Mr. Travers, on visiting the patient to-day, remarked to the pupils, that the present was a case of diffuse inflammation of the cellular tissue, *above* the tendon of the occipito-frontalis, being, in fact, what is called *erysipelas of the scalp*, which is so commonly observed to follow even the slightest injuries to this part. Mr. Travers further observed, it was a case in which some persons would cut down upon the parts, in order to prevent suppuration; but he was not an advocate for such practice." If this observation was meant for myself, as I conclude it was, I take this opportunity of representing that it is altogether incorrect. During the debate at the Society, I expressly stated in my reply, to which Mr. Travers paid marked attention, that I had employed incisions in erysipelas of the head under two circumstances only, namely, when the cellular substance of the upper eye-lids has been seriously affected, and when the copious cellular tissue, *under* the aponeuroris of the occipito-frontalis, has been inflamed. I have never employed incisions in such a case as that mentioned by Mr. Travers, which I should arrange under the head of simple, and not phlegmonous erysipelas. I have lately had instances of it under my care at St. Bartholomew's, and one in which the inflammation was considerable; it yielded, however, to the ordinary antiphlogistic treatment. This simple erysipelas of the scalp seldom terminates in suppuration; so that the reason for the supposed practice does not exist.

While I was writing the foregoing letter, I received a communication from Mr. Cooper, respecting the case cited by him as having been treated by Mr. Vincent. Although I need not refer to what he says on this subject, which is left just as it stood before, I subjoin the following passage, in which he points out an error in your report of another case treated by Mr. Vincent: (Lancet, No. 223.) "The two incisions are represented by Mr. Vincent to have been each five inches in length, and not three, as stated by the reporter of the case. This increased measurement would not, as you may conceive, lead me and many others to entertain a higher opinion of the practice; but it deserves notice, as the writer in the Lancet seems to aim at making the case appear an insufficient specimen of your plan, partly on account of the smallness of the incisions."

When phlegmonous erysipelas has been allowed, as in the case alluded to by Mr. Cooper, to extend over a whole limb, and proceed to suppuration and sloughing of the cellular texture, I think it of no consequence whether the cut measure five or three inches. The time at which the practice is adopted is a much more important consideration. The incisions were made on the fifth day after the patient's admission into the hospital; had they been made of suitable length on the first day, when, according to the report, all the indications for this treatment existed, I am confident that the extent of local mischief, and the time occupied in recovery, would have been greatly abridged.

MR. ABERNETHY'S PORTRAIT.

To the Editor of THE LANCET.

SIR,—It is now more than twelve months since, through the medium of your pages, I made complaint that the Committee, who undertook the management of the Portrait of Mr. Abernethy, had never fulfilled their engagement with the subscribers, though about twelve years had elapsed since the money was contributed for an etching and an engraving; the former at one guinea, and the latter at two for each impression. I refrained, at that time, from naming the gentleman to whom I paid my subscription, from a desire to spare him *unnecessary* publicity, and from the belief that he was not individually responsible: I also withheld some circumstances connected with the *origin* of this portrait, which might not have been very agreeably published, in the hope that a little time would have put me in possession of the engraving. In this I have been disappointed, in common with the rest of the subscribers, to whom the Committee have not condescended to explain the cause of so long a delay. I have heard, indeed, but from no authority, that they improvidently advanced *all* the money, before the work was *half* completed; and that, in consequence, the artist (*Bromley*) had come to a stand still. If this be a true account, Mr. Editor, is it not but common justice that they should stimulate him with a little of their own cash, to put a finishing stroke to his work, and to the repeated complaint of an

ABERNETHIAN?

P. S.—Being a bit of a Sangrado myself, and having a high respect for Mr. Lawrence, I should be glad to hear if his fever was "*put out*" by the loss of the seventy ounces of blood the other day. Whatever was the result of the treatment, it ought, I think, to be made public, for we country folks know nothing about him, after he left the Society.

Bucks, Dec. 11, 1827.

[The letter of Mr. Lawrence in the present Number, amply testifies to the excellence of his health, both bodily and mental.—ED. L.]

INJUSTICE TO DRESSERS AT ST. THOMAS'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—I conceive that when a student enters himself as dresser to a surgeon at a public hospital, he pays the premium as a consideration for the advantages and immunities connected with the duties of his situation. I consider also, that in this mutual interchange between the surgeon and student, there is an implied compact, by which the former guarantees to the latter those privileges, both relative and collateral, which custom may have established. These points being conceded, I presume that I have a fair ground of complaint, arising from a measure which has lately been adopted in this establishment. It had hitherto been the province of the dressers to perform the post-mortem examinations of such of their patients as were submitted to necroscopic inquiry, a privilege essentially necessary to an attainment of that knowledge, which is the only true foundation of a just and rational practice—I mean pathological anatomy. A week or two since, however, it pleased the authorities here to appoint the two demonstrators to the office of inspectors of bodies, and a notice of the time appointed for the examination, is sometimes condescendingly stuck upon a board crowded with such a miscellaneous assemblage of placards and bills, that an inquiring eye recognises it with difficulty amid the heterogeneous melange by which it is surrounded. If this paper escape the observation of the dresser, or the period fixed happens to be at the time of his going round with the surgeon, *which it generally does*, he is precluded the opportunity of obtaining even a peep at the operation, the value of which cannot be sufficiently estimated, nor its practical applicability justly delineated, by persons unacquainted with the history of the case.

I remain, Sir,
Your humble servant,
A DRESSER.

St. Thomas's Hospital,
Dec. 26, 1827.

GUY'S HOSPITAL,

CASES OF PHIMOSIS, TREATED BY MR. MORGAN.

THE following are notes of the treatment employed in three cases of inflammatory, or as it has been called, *accidental* phimosis; and they serve to illustrate not only the general features of the disease, but also its peculiarities, whether arising from the local circumstances of a greater intensity or longer continuance of inflammation, or from constitutional causes.

CASE 1.—*Phimosis, in its simple inflammatory Stage, with Gonorrhœa and Sores on the inner surface of the Prepuce.*

J. C. ætat. 27, a hard-working man, accustomed to drink freely of porter and gin, was admitted into the Venereal Male Ward on the 31st of October. He had laboured under gonorrhœa for six weeks, and soon after its appearance had applied to a quack, who administered mercury to ptyalism, continuing its action for about a week. The penis became red and swollen, several days before his admission, but he continued his ordinary employment, taking stimulants as usual, and allowing the part to hang down.

When admitted the prepuce was very much swollen, being in fact in a state of intense inflammation, and the redness extended some distance down the penis: upon pressing the glans the patient complained of much pain, and purulent matter issued abundantly from the orifice at the end of the prepuce.—It had, however, become so much contracted from swelling, that it was not possible to detect from whence the matter flowed; that is to say, whether from the urethra, or the corona glandis and inner surface of the prepuce.

Several punctures were made in the swollen part, and a large portion of blood and serum thus evacuated. A poultice was ordered to be applied to the part, and the patient directed to take ten grains of extract of poppy and one grain of calomel at bed time, with a purgative dose of calomel and colocynth immediately.

On the following day the appearance of the penis was much the same; the œdema was still very great, and the redness had extended. Upon making pressure on the glans, a bloody sanies issued. Mr. Morgan now freely divided the prepuce on its upper part, with a bistoury, which being done, he found the inside of the prepuce studded with small superficial sores. On the second day after admission, fifteen leeches were applied to the penis, in consequence of the redness still continuing, and a purgative powder of scammony and calomel was exhibited. The poultice was continued.

On the 4th of November, a decided amendment had taken place; the inflammation having much abated, and the edges of the divided prepuce manifesting a disposition to suppurate. From this period nothing material transpired; a solution of lunar caustic was ordered on the 10th; the parts went on gradually healing, and the patient was discharged, cured.

Case 2.—*Phimosis, with Inflammation more advanced.—Gonorrhœa, with Sores on the inner Part of the Prepuce.*

In this instance the inflammation of the integuments of the penis was of longer duration than in the former case, and probably it also existed in an aggravated degree, owing to some peculiarity of constitution, which was rendered apparent by the phagedenic condition assumed by the surfaces after dividing the prepuce.

J. P. ætat. 18, of spare habit, was admitted, on the 31st of October, into Samaritan's Ward. He had laboured under gonorrhœa upwards of eight weeks, and had had inflammation of the prepuce more than a fortnight; he had kept his bed during that time, but had no medical assistance. When admitted, the penis was very much swollen, and the integuments at the lower part were hard in the feel, as though lymph had been effused into the cellular tissue; the whole were of a dark red colour, and this extended some way down the penis. The phimosis was complete, not even the tip of the glans being perceptible; a profuse discharge issued from the end, when pressure was made on the glans. There was much febrile irritation, the pulse being quick and sharp, and the tongue furred. Mr. Morgan directed fourteen ounces of blood to be taken from the arm, and a purgative dose of calomel and colocynth, to be given directly. By means of a director and bistoury, Mr. Morgan freely divided the upper part of the prepuce, exposing the glans, which was of a dark red colour, as though it had been suffering from pressure: upon the corona glandis, and also upon the inner part of the prepuce, were numerous superficial sores, sloughy in appearance, and with considerable surrounding redness. A common poultice was applied.

November 2. There is much constitutional excitement; the pulse quick, and of that character which is aptly termed, irritable. The edges of the divided prepuce have a sloughy appearance, and discharge a sanious fluid. A grain of opium, with a grain of ipecacuanha, to be taken night and morning: a dose of saline mixture, with *twenty-five minims* of *tincture of henbane*, three times a day.

Under this sedative plan of treatment, the local and general irritability subsided: the sore assumed a more favourable aspect, and discharged a thicker matter. On the 7th, however, the surface of the sore was covered with a whitish slough, the parts around the edges were inflamed, and there was a hot burning pain felt. *A grain and a half of opium*, with a *sixth of a grain of tartar emetic*, to be taken at night, and the dose of henbane increased to *forty minims*.

December 11. The sore has been almost stationary since the last report. Continue the same treatment.

17. The wound very unhealthy in appearance, and disposed to increase. Ordered to apply stale beer-ground poultices.

27. From the last report the sore has been in a sloughy condition, and has increased; the pulse is now sharp and quick. Mr. Morgan directed ten ounces of blood to be taken from the arm.

The blood-letting was very obviously productive of benefit; the irritation and pain attendant upon the sore subsided, a healthy discharge took place, granulations formed, and the healing process went on uninterruptedly. On the 13th of December, when this report was concluded, the man was walking about the ward tolerably well.

Case 3.—*Phimosis, from Gonorrhœa.—Inflammation ending in partial Sloughing of the Glans Penis, and Prepuce.*

In this case we have an instance of common inflammation of the integuments of the penis producing phimosis, and running on to gangrene; the glans penis also becoming involved from the constriction, produced in the first instance by the swollen teguments.

M. L., ætat. 25, a coal-heaver, accustomed both to drink and work very hard, stated on his admission that he had laboured under gonorrhœa upwards of a fortnight. About a week before admission the prepuce began to swell; but he continued his laborious employment, drinking as usual, and allowing the part to hang down. He came into the Hospital on the 3d of November, when the whole of the penis was found to be very greatly swollen, and the skin of a dark brown colour, amounting almost to black; the parts had evidently become dead; they were insensible; he evinced no pain on pressure over the glans, nor was he in fact conscious of the part being touched at all. The phimosis was complete; there was a profuse discharge from the urethra. The pulse was feeble, the countenance pale and anxious, the tongue furred and tremulous. Mr. Morgan freely slit the upper part of the prepuse, thus exposing the glans, the upper half of which was found to be in a sloughy condition: in making the incision through the integuments two arteries were divided, and they bled so freely that it was thought proper to apply a ligature to each. A stale beer-ground poultice was applied to the part, and nitric acid lotion (of double strength) by means of lint. A pint of porter daily; two grains of sulphate of quina, with an ounce and half of musk mixture, three times a day, and two grains of opium at bed time.

On the 6th of November, the slough of the glans, and also of the prepuce, had separated.—On the 10th, the sores were discharging healthy pus; the constitutional powers, however, being very feeble, the dose of quinine was increased to four grains. With this tonic plan of treatment, aided by a generous diet, the parts gradually healed, and the patient left the Hospital on the 12th of December, cured, but denuded of his prepuce entirely, and a considerable portion of the glans penis.

OPERATIONS.

Lithotomy by Mr. B. Cooper.—On Tuesday the 18th of December, Mr. Cooper performed the operation of lithotomy on a child about three years of age. The knife and straight staff were used on this occasion;—there were no particular circumstances attendant upon the case, and the calculus, which was removed without difficulty, was of the size of a hazel nut. The child, at the close of this report (Dec. 25th), is doing well.

Amputation of the Thigh by Mr. Key.—This operation was performed on Wednesday the 19th, in consequence of long-standing and incurable disease of the knee joint. Two lateral flaps were made, a mode of procedure now generally adopted at this Hospital in amputation of the thigh, and one which, as far as we have seen, answers admirably. In the process of healing, the cicatrix formed on the stump by the conjunction of the lateral flaps, becomes retracted, and a fleshy cushion is formed from the muscles, well calculated to sustain the weight of the body.

In Mr. Key's case, under consideration, it was noticed at the time of the operation, that the arteries of the limb were unusually large, but four or five ligatures only were applied. A few hours after the operation, hæmorrhage took place from the stump to such an alarming extent, that it was necessary to remove the dressings, and tie several arteries. In the course of the night profuse bleeding again occurred,—the dressings were a second time taken off and several vessels tied. Upon the whole, we believe SIXTEEN ligatures were put on the face of the stump—the vessels tied, as we understand from Mr. Key, were all *arterial*. On the 25th, when we last saw the patient, there had been no further occurrence of bleeding, and he was, upon the whole, doing well.

TO CORRESPONDENTS.

Mr. Rolf's Letter has been received, but we fear that it is too long for insertion.

Other Correspondents must stand over.

THE LANCET.

Vol. I.] LONDON, SATURDAY, JANUARY 5. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY
DELIVERED AT GUY'S HOSPITAL BY
DR. JAMES BLUNDELL.

Lecture XIII.

Extraordinary Difficulties in Preternatural Presentations.

In the abstraction of the child, Gentlemen, under the crural presentation, it sometimes happens that unusual difficulties occur, when the *abdomen*, or the *arms*, or the *head*, are brought through the pelvis; and to the consideration of these difficulties I shall this morning proceed.

From air, the abdomen is sometimes enlarged considerably, the bowels being tympanitic; rarely, however, without a putrescence of the fœtus, indicated, perhaps, by the desquamation of the cuticle and other changes of those parts which lie under the eye. Lowder once met with a case in which the peritonæum of the fœtus contained a gallon, and I regret that I cannot, at the moment, mention the name of a gentleman who showed a fœtus whose abdomen contained two or three pints, that had accumulated in the urinary bladder; the possession of which I owe to his liberality.

Meddlesome midwifery is bad. When the abdomen is enlarged, it does not follow that active operations are necessary. Though the fœtus in Lowder's case contained a gallon of water, it came away unopened; the pelvis may be large, the powers may be great, the fœtus may be yielding; co-operating with the pains, careful not to lacerate the perinæum, (the part most in danger,) carrying the fœtus from the sacrum towards the abdomen of the mother; humouring, leading, you get the child away. When, however, the pelvis is small, or the parts are rigid; or the abdomen bulky in the last degree; or the pains are feeble; reduction of size may become requisite. If there be dropsy, the swelling must be punctured; if inflation, perhaps the abdomen must be laid open more extensively: but accumulated gas can, I conceive, but rarely require the operation. That a child is dead, we may presume when the chord is flaccid and cold for an hour or more without pulsation; that it is dead, we may infer with certainty when the body is begun to decay. In the general, with dead children only can it be justifiable to lay open the abdomen when the enlargement is gaseous. The blood chills and curdles at the thought of tearing out the intestines of a living fœtus. By the people of England—the censor and monitor of nations—wild beasts are caged, but, worse than these, the accoucheur, meddlesome and violent, yet responsible to none, has been unwisely let loose upon society, with all his instruments of destruction about him.

> " Quale portentum neque militaris
> Daunia " . . . . . .

But I am digressing.

When bringing the child into the pelvis, you ought to be very cautious to keep the arms in the back of its cavity, and as near to the face of the child as may be. Where this rule is neglected, however, and sometimes from other causes, the arms may become fixed in the pelvis, and most frequently between the symphysis pubis and the head. In difficulties of this kind, it ought to be your first endeavour to extract those arms in the ordinary manner,—the different parts of the operation, however, being performed with more than ordinary nicety and energy; thus you bring the axillæ to a level with the external parts; you throw the body thoroughly out of your way,—an operation of much importance, at the same time giving it that position which may favour the descent of the arm athwart the face. Then placing all your fingers on the arm, about the bend of the elbow; for in so doing, you obtain a forcible bearing there, provided the obstruction is not unusually great, you may bring down the arm with tolerable facility. But what is to be done in those more difficult cases, where attempts of this kind fail? Why here, I conceive, the only remaining recourse is, to lay open the cranium with the perforator, when the arms will become liberated by the collapse of the bones. This operation, however, can never be necessary, till you have ascertained by repeated, well-directed attempts, that extrication by the fingers is impracticable. This operation, too, can never be necessary till the child is already dead,—the death being easily ascertained by the coldness, flaccidity, and, above all, the total cessation of the pulse in the chord, which lies immediately under the touch. To perform this operation, take this instrument, the perforator,—unfortunately of too easy use,—and planting two fingers on the occiput, in the way of a director, perforate the cranium; and afterwards separating the blades, enlarge the opening as much as may be, in the manner here demonstrated. This accomplished, passing the crotchet into the cranial vault—moving the instrument in every direction, lacerate the membranes and pulpify the brain; so that, soft as panada, it may readily issue at the opening; when you will generally find, on pulling with the crotchet, that the head descends without previous abstraction of the arms: though on the whole, perhaps, it is better, pursuing the general practice,—first to extricate the superior extremities, and then to bring away the head.

In the abstraction of the head, in these cases, sometimes unusual difficulties occur, divisible into four classes: those, I mean, in which the obstruction arises from an unfavourable position of the head; those cases in which it is produced by a slight deficiency of room in the pelvis; those cases, in which the deficiency of room is more considerable; and those cases, lastly, rare in British and well-conducted midwifery, in which the head is pulled away from the body, the cranium lying detached in the cavity of the uterus.

Where the pelvis is small, or the head large, or the practitioner is unskilful, it sometimes happens that the abstraction of the head is attended with much difficulty, in consequence of its unfavourable position. In speculation, cases of this kind might be multiplied *usque ad nauseum*—but, in practice, they may be reduced to three principal varieties, with all of which you ought to be acquainted. When the head is at the outlet, the face and occiput lying on the sides of the pelvis, the chin may lodge on one set of sacro-sciatic ligaments, and the occiput on the other. In cases of this kind, if the pelvis be large, or the cranium small, or the uterine efforts frequent and powerful, the child may escape notwithstanding; but if the pelvis be small, and the head large, not understanding the nature of the difficulty, you may go on pulling till you actually tear the head from the body; whereas, if you turn the face into the hollow of the sacrum, and the occiput to the symphisis pubis, drawing the chin a little downward and forward upon the chest, the whole difficulty vanishes at once, as this apparatus shows, and the head passes easily enough. Again, when the head is at the brim of the pelvis, it happens sometimes that the chin of the child lies over the symphisis, and the occiput over the promontory; the long length of the head lying, as I now show you, over the short length of the brim; so that, unless these langths be greater than ordinary, the head cannot be brought away. Understanding the nature of these difficulties (easily ascertained by examining the position of the body, which lies through the outlet, under the eye of the operator), to remove it, in some cases, is by no means difficult, provided the accoucheur be resolute and dexterous. Grasping, as I now do, the body with the left hand, and then conveying the abdomen of the fœtus gradually to the back of pelvis, acting on the head through the intervention of the neck, you endeavour to turn the chin to one side. In doing this, however, as the tender compages of the neck may suffer from contusion, if the bearing there be too forcible; it is better, if practicable, to lay the fingers of the right hand on the side of the cranium, and with well directed pressure there, to assist the movement of the face to the side, the two hands mutually co-operating. Should rectification, however, be impracticable by gentle means, you may then endeavour to abstract the head by raising the occiput, and depressing the chin upon the chest; so that, of the three longer axes of the head, the shortest, little exceeding four inches, may be brought to bear upon the short diameter of the brim. In this position, if the pelvis be capacious, the head may descend, with the face throughout the labour upon the symphysis pubis, as seen in this apparatus; or, if delivery cannot be accomplished in this manner, you may then lay open the cranium at the occiput. This tremendous and heart-sickening operation, however, can never be necessary in these cases, till the fœtal life is extinct. Thou shalt do no murder. These words cannot too often tingle in obstetric ears. But to proceed.

The passage of the head is sometimes obstructed in consequence of your not drawing in the axis of the pelvis, when the cranium is at the brim; and as this is an error, which you are very likely to commit when off your guard, I am the more anxious to impress it indelibly on the mind. In the demonstration here given, the head is in a position favourable enough to the passage of the superior aperture; the occiput lying on one side of the pelvis, and the face upon the other; but if the head be large, and the pelvis small, and I am seated near the feet of the woman, consoling, encouraging her, of course, in drawing the child, I urge it downwards and forwards on the symphysis pubis. Now, under these circumstances, if the head be small, or the pelvis large, the cranium may pass notwithstanding; but if the head be large, or the pelvis small, as in this apparatus, you see I may draw till I pull this pelvis out of the hands of the gentleman who holds, yet the head may not be brought away. You smile, and not without reason: an ignorant midwifery is a comical tragedy; the whole difficulty is of my own making, it arises from my drawing out of the axis of the brim. Let me quit the feet and approach the loins, let me draw in the axis of the superior aperture downward and backward towards the coccyx, careful not to injure the perinæum, the head comes away easily, and safely enough. An unlucky case!—an unfortunate case! Like the two Amphytrios in the comedy, Mis-fortune and Mis-management (excuse the levity) are so like each other, that their nearest acquaintance cannot always distinguish the one from the other. But enough of this.

In bringing away the head of the child, again, you have sometimes to contend with difficulties at the brim, arising most frequently from want of room between the front and back; to the consideration of which we will next proceed.

Eight or ten crural presentations, with deficiency of room at the brim, have fallen under my notice,—the want of space being ascertained in these instances, not by nicely measuring the pelvis, but by the detention of the head at the superior aperture; notwithstanding, the position was favourable and a full abstractive force was employed. When the feet are presenting and the head is lying in the brim, the body being thrown out of the way into a commodious position, a dexterous operator might, I have no doubt, apply the longer forceps or even the lever to the head of the fœtus, and draw down with great effect. Steel, however, like the nerves of a rude accoucheur, is apathetic, and has no sympathies. The steel of the instrument-maker is sometimes as fatal as the steel of the armoury—and Laundy and Perkin may perhaps vie with each other. In difficulties of this kind your instruments are not in general needed, and therefore I conceive ought not to be employed. The delivery in many cases may be effected as follows:—Availing yourselves to the utmost of your knowledge of the forms of the head and the pelvis respectively, agreeably to principles so often stated, you place the head at the brim as I now place it, with the face and occiput in the sides of the pelvis and the chin upon the chest; careful to draw in the axis of the brim, that is, in a line extending from the navel to the coccyx.

To secure the command of the head when practicable, you place the two fingers on the chin, the rest of the hand bearing on the shoulders and chest in front—while the other hand, resting on the shoulders and chest behind, you pass a finger as high as may be on either side the occiput, obtaining that bearing on the child which I here demonstrate. The child thus secured, you request an assistant to take place at the bed side, near the loins of the patient, and, with the interposition of a cloth, grasping the body of the fœtus, to draw obsequiously under your direction. These preliminaries observed, when a pain occurs you draw down in co-operation,—perhaps swaying the body a little from front to back, careful of the perinæum, however,—till the head, brought to its bearing as here, you say to your coadjutor, stop—lie on the pull—let us suffer the head, under moderate compression, to mould itself—let us wait for another pain; look at the countenance—count the pulse—reflect:—after pausing in this manner for one or two minutes, during a pain, if there be any, you draw as before, advancing the head a little further, and again pausing, with the same caution as before, allowing the head to become further moulded and compressed. And proceeding in this manner, pulling at one moment, pausing at another, you gradually work the head through the brim, when further difficulty does not usually occur. As the head may, as here, slip suddenly through the brim, be prepared to relax as suddenly when pulling, or the head may dash through the outlet and tear the perinæum. Decapitation will be the effect of sudden pulling or jerking; but if the cranium be a little softened by putrefaction, you may, without rupturing the neck, exert in a gradual manner a force so great that the vertex opens and the brain escapes. These higher degrees of force, however, in the general, are neither safe nor justifiable; the safety of the mother is paramount, and is better secured by the use of the perforator. The birth of the child, though not to be hurried, must not, however, be needlessly procrastinated, as the chord is under pressure and death must ensue. Under the best management, most of these children are still-born.

In higher degrees the pelvis may be contracted, when the abstraction of the fœtus must be attended with difficulties still greater, to be surmounted by laying open the cranium,—the operator proceeding in the method before described. When the head is laid open and the brains have been pulpified, frequently the fœtus descends with facility, the cranial bones becoming collapsed. Notwithstanding this reduction of bulk, however, the descent of the head may still be impeded, when it becomes necessary to observe the following cautions:—Make the opening into the cranium as capacious as may be; by the action of the crotchet, diligently employed, let the cerebral mass be pulpified with more than ordinary care; in drawing, place the basis of the skull parallel with the symphysis pubis, and, which you may easily do, bring down the occiput as the most depending part. The cranium here exhibited to you consists of the facial bones and basis, with the bones which form the upper part in a state of collapse; though thus reduced in size these remains of the head, when placed with the basis parallel with the plane of the brim, nearly fill the aperture and pass with some difficulty, as this apparatus demonstrates; but you perceive it drops readily through the pelvis when the basis is placed parallel with the symphysis. If the basis lie against the symphysis, the face being the part most dependent, the facial bones and neck, a large mass, must pass the contracted pelvis together; but if as advised, and as indeed you will find most easy, the occipital bone be drawn down by the crotchet, you perceive here that the facial bones will pass the pelvis alone, the occiput and neck of the child descending through the contracted pelvis in one mass, of bulk by no means considerable. Observe again this apparatus. Before you operate, the death of the child may be known by the continued want of pulsation at the root of the chord, not to mention the desquamation of the cuticle, and the putrescence of the limbs; and I may repeat a remark made in an earlier part of the Lecture, I mean that it never can be necessary to perform this horrid operation while the fœtus is alive.

The decapitation of the fœtus is not, I think, a common occurrence in well-managed British midwifery; but, in a few rare cases, in general perhaps ill conducted, the head becomes detached from the body; and this constitutes the fourth difficulty of which I proposed to treat. To get the command of the head, is in these cases the principal difficulty; and different instruments contrived for this purpose are lying on the table before you. The courtly St. Amand, I think it was, contrived a net to inclose the head when in utero. I am not sure that he called his invention the obstetric fool cap, but the designation would not be very inappropriate. Spreading it over your fingers, you carry it into the cavity of the uterus, *if you can*; in doing this, you avoid bursting the womb or vagina, *if you can*; there is always danger, and here you have choice; then, having got thus far, you are to lay the cap over the child's head, *if you can*; ultimately, by means of this invention, abstracting the head, *if you can*. This inauspicious impedimental,—"if you can," throughout the operation meets and embarrasses you at every turn. The rats, in council, resolved that some measure should be taken to secure them from their arch enemy: an orator, garrulous and much applauded, conceived it would be advisable to append to her neck a bell,—silver and chased of course, and of a form at once classical and elegant; aye, *if you can*, exclaimed a quadruped, a Phocion of the assembly, and demolished the orator. By Levret, the instrument here exhibited was contrived. Its structure and action I here demonstrate; Smellie's improvement I now hold in my hand; it admits of more ready application to the cranium, being more obedient and obsequious to the operator. By Gregoire, an instrument probably preferable to either has been contrived; the make and action of it I here demonstrate. Bearing on the firm margins of the foramen magnum occipitale, this instrument, properly applied, gives a secure hold of the head; nor do I think that the annexation of some two or three vertebræ to the head, would preclude the introduction of the blades, nor, would it be difficult, if necessary, to pull these vertebræ away by means of a proper instrument.

A meddlesome midwifery is bad. When by mismanagement or otherwise, the head becomes detached from the body, the unaided efforts of the uterus will sometimes push it away; and, therefore, unless the contracted state of the pelvis show that such hope is vain, these efforts should be fairly tried. When, however, the detached head is to be abstracted by the accoucheur, he may first endeavour to fix it in the brim of the pelvis by well-directed pressure from the hand of an assistant, applied above the symphysis pubis; and then taking a large strong perforator, like that here exhibited, he may either enlarge the foramen magnum, or make a large opening through the occiput, abstracting the brain at the aperture, afterwards drawing down by the crotchet,—the head readily descending after its bulk has been reduced. Should pressure on the uterus above the symphysis be insufficient to fix the head firmly, we must then obtain command by means of one or other of the instruments just demonstrated.

Transverse Presentations.—When neither the superior nor inferior parts of the child are lying over the centre of the brim, the *head*, I mean, or the *nates*, the *knees*, or *feet*, the fœtus lying across the pelvis, further difficulties arise, to the consideration of which we will next proceed.

In Burn's excellent work, I find reference to a very extraordinary case, in which the womb and abdominal coverings becoming torn open at these apertures, the child was spontaneously expelled, the woman ultimately recovering. More frequently, when the birth of the fœtus is obstructed, the uterus gives way, the fœtus escaping into the peritoneal sac, lying there for the rest of life, forty or fifty years, for example, becoming converted into a mass of bone, and occasioning little further inconvenience, except that which results from its bulk and weight. To Dr. Cheston, a very distinguished practitioner, a case of this kind occurred. The woman lived subsequently forty or fifty years. After death, he found that the fœtus was ossified; and in the Museum of the College of Surgeons, under the direction of the very able and obliging conservator Mr. Clift, this presentation may now be seen.

In transverse presentations, it still more frequently happens that the uterus disrupted, the child escapes into the peritoneal sac, and is brought away through the pelvis, by the operation of turning. Carrying his hand into the peritoneum, through the lacerated opening, the accoucheur, careful not to lay hold of the intestines, seizes the feet of the child, and draws them over the centre of the pelvis. A case very similar to this has fallen to my own care; it was not, indeed, a transverse, but a vertex presentation; the pelvis was narrow, spontaneously the womb gave way. My hand was carried through the opening in the front of the neck of the uterus opposite to the bladder (the bladder being uninjured). Cautiously and slowly the feet were drawn down, the child was abstracted dead, but the mother ultimately recovered. That there was a rupture of the uterus, and that the child had escaped into the peritoneal sac, was without doubt. I felt the contracted womb; I felt the intestines; I felt the large pulsating arteries; I felt the edge of the liver; and this during the progress of my hand towards the feet, which lay near the ensiform cartilage: nor, though curious, is the case by any means singular.

When the presentation is brachial, there is yet another way in which the fœtus may pass, occasioning but little anxiety to the accoucheur; for the pelvis being large, the fœtus small, the womb active, and the fœtus under six months of age, the child may be pushed away without interference of the accoucheur. Understand, however, clearly, that where the fœtus and the pelvis are both of standard size, you cannot succeed by this method of abstraction Fracture of the arm, and disruption, I have seen in consequence of rude attempts to bring away the child in this manner—and this, too, (hear it, I entreat, Sir Anthony!) by the fair and gentle hands of a female accoucheur. The only cases in which you ought to confide the delivery to the natural efforts of the uterus, are those cases where you perceive obviously, from examining, that the child is coming down into the pelvis; examining the first time, you observe a small descent; examining a second time, you find it descended a little further; examining again, further descent is observed, the fœtus advancing perhaps with every pain.

There is, too, another principle from which your indication may be taken—I mean the age of the fœtus, ascertained by the "calculation or reckoning," as it is called, and by the dimensions of the protruding member, allowance made for that enlargement which results from compression and intumescence. In general, if the pelvis be of standard capacity, if more than six months old, the fœtus cannot be transmitted under the brachial presentation; if less, it may pass. Pelves, however, may exceed or fall below the standard dimensions, and the rule must, of course, be modified accordingly. All this may be illustrated by the models here shown.

When the child is lying transversely, it is worth our knowing that evolutions sometimes occur, and more especially in brachial presentations; a truth, for the knowledge of which we are particularly indebted to a very amiable and very excellent man, I mean Dr. Denman. Under this evolutionary descent of the nates, Denman supposed that the arm ascended, but Gooch, a practitioner full of talent, has shown that, in some cases at least, the arm scarcely rises in the uterus at all. For myself, after being present at two or three spontaneous evolutions, I am persuaded, that in most, if not all cases, as Gooch has suggested, the arm remains at the same, or nearly the same elevation, pushed a little to the side of the pelvis, while the body of the fœtus, relaxed and softened sometimes during life, more generally in consequence of extinguished vitality under strong and repeated uterine effort; first, the thorax of the child, then then abdomen and flank, ultimately the hip and breech, are urged through the brim; the parts, not without incurvation of the softened body, successively following each other into the pelvis. Observing these "spontaneous evolutions," as he significantly called them, and unwilling to interfere during parturition without need, Dr. Denman advised that, in arm presentations, we should always confide the delivery to the natural efforts, abstaining from the introduction of the hand into the uterus. When, in conformity with this opinion, in several cases these presentations were trusted to the unaided efforts of the uterus, in many cases, no doubt, the expected evolutions did occur; but, in some, perhaps I may say many cases too, the evolution failed, and turning became requisite. To this may be added, that, under spontaneous evolutions, the children were almost invariably born dead,—nine out of ten, for example, or nineteen out of twenty. For the purposes of practice, the fact itself is sufficient, and it constitutes some objection to Denman's recommendation; but it may not be amiss to add, in the way of explanation, that the death of the fœtus is rather the preparative than the effect of the evolution; in order that the fœtus may be evolved, flexibility is necessary, and this flexibility, in general, does not exist, unless the child is wholly, or in great measure, dead. Now, on both these accounts, because the fœtus is so often born dead, and because there is a fear that the powers of nature should fail her, as a general practice it is improper to confide delivery to the spontaneous evolution; but if the tendency to evolution be shown by your feeling the descending ribs or abdomen, or if you have made attempts to turn the child without success, either from want of skill, or from the insurmountable difficulties of the case, then, indeed, this mode of delivery should, I think, be fairly tried. I was called once to a case in the neighbourhood of town, where two or three accoucheurs of talent had attempted to turn the child, but could not succeed, and, on trying myself, I failed too. Under these circumstances, we deemed it prudent to wait; and, in the course of two or three hours afterwards, the child came away by the spontaneous evolution.

In the transverse presentation, however, the ordinary method of delivery is by means of the turning, to which I have so often referred; and in different ways this operation may be attempted. Laying hold of the cranium, we may endeavour to bring the head over the centre of the pelvis; or, laying hold of the breech, we may bring down the nates; or, laying hold of the knees or legs, we may draw down by these parts; so that the operation of turning, may be divided into *three varieties*: the turning by the head, the turning by the breech, and the crural turning. Of these three varieties, the cranial turning is the safest for the child; because, if we can bring the head over the centre of the pelvis, there is no danger lest the umbilical chord be compressed, and the child is born in the usual manner.—Though desirable for the child, however, this form of turning is unsafe for the mother, because difficult for the accoucheur; for the head, large, rounded, and slippery, escapes from the hand, and the repeated endeavours to grasp it are not without danger of laceration. Next to the crural turn, is the turning by the nates; and I have told you already, what you have not, I trust, forgotten, that more children are born alive under the breech presentation than the crural. In the breech presentation, the lower limbs lying on the abdomen, there is a groove formed between the thighs, in which the umbilical chord lies, and is secure from pressure. Now when you introduce your hand to turn the child, perhaps the nates constitute the first part on which your fingers fall, and this part you may bring over the centre of the pelvis. Like cranial turning, however, that of the nates is, on the whole, not easy for the accoucheur, and hence though safer for the fœtus it is less secure for the mother, and, as a general practice, ought not to be adopted. When we turn by the feet or knees, the umbilical chord is exposed to continued and fatal pressure during the passage of the head and shoulders; yet, notwithstanding this objection to the crural operation, and though in some anomalous cases we may, perhaps with advantage, turn by the nates or the cranium, yet, on the whole, this method of operating by the feet is to be preferred.

In transverse presentations, it has been proposed to bring away the child by the Cæsarean operation, and after what I have seen of the difficulties and dangers arising from these presentations, I would frankly acknowledge that cases do now and then occur in which I conceive it would be less painful, and on the whole not more dangerous to the mother, to have the child taken out by the Cæsarean operation (improved as it may be hereafter,) in preference to any other mode; but if we once admit the obstetric principle, that the Cæsarean operation may be performed in transverse cases as a substitute for turning, to the abusive adoption of the Cæsarean incision by the rash and adventurous, there would I fear be no end, and the greatest mischief might ensue. Against such use of the operation, therefore, in the present state of knowledge, I feel it a duty to raise my voice. In transverse presentations I cannot allow that the Cæsarean incisions are ever justifiable, and the man who, under such circumstances, rashly performs them, would render himself awfully responsible for the result. Ye men of genius (if such there be present,) with minds formed, not merely to talk about the profession, but to improve it, never shrink from your duty for fear of the blockheads; formidable as they may appear at first onset, if left to themselves they will soon collapse into their natural insignificance,

> "Quali dal vento le gonfiate vele
> Caggion avolte poiché l'alber fiacca."

Remember, however, that firmness and rashness, though approximated, are as different from each other as vice and virtue, and that from the reproaches of our own conscience, it is no cowardice to shrink.

Mr. Scott, a very intelligent practitioner of Norwich, met with a case in which the woman recovered, although the os uteri was torn off and came away from the vagina. For reasons stated at large in the Physiological Researches, I feel persuaded that the division of the os uteri would not necessarily prove fatal; nevertheless, as a remedy in obstructed transverse parturition, in the present state of experience, it ought, I think, to be reprobated, as both dangerous and inefficient. If an incision were made, on introducing the hand the opening would most probably become enlarged by laceration; and even though you passed into the womb with facility, the main difficulty would still remain, I mean, the conveyance of the hand along the body of the uterus into the fundus, where the feet commonly lodge.

In transverse presentations, I have never yet had occasion to remove the child from the uterus by embryotomy, having always found hitherto, that, with patience and management, delivery could be otherwise effected. Having, therefore, personally but little knowledge of the operation, I forbear copiously to enlarge on it, though a few remarks may be allowed.

In performing embryotomy, it should, I conceive, be our first endeavour, from accurate observation externally and within, to ascertain, as clearly as may be, the position of the fœtus. This point obtained, we may attempt the abstraction of the child in two ways, by decapitation, I mean, or disruption of the different cavities. For opening the cavities, I suppose the best instrument is a long large perforator, in the arm presentation, the most common, to be introduced at the thorax, the viscera being afterwards removed at the opening, so as to make room for the introduction of the hand and the seizure of the feet. Although, however, a fœtus may be removed in this manner, I suspect that extraction by decapitation, when this may be accomplished, is decidedly to be preferred; a practice first recommended by Hoorne, and recorded, I think, by Heister. I should prefer to a semilunar knife with cutting edge, a blunt hook of soft iron, and not of steel, mounted on a stem, firm yet flexible, so that, in operating, the curve might be accommodated to the situation of parts. Over the neck this hook is to be fixed, and then by drawing resolutely, but rationally, the head is to be torn from the body; the body of the fœtus being first abstracted by the arm, and the head removed from the uterus separately afterwards. These operations, calculated to fill the feeling mind with disgust and horror, can, I conceive, under no circumstances be necessary, unless the fœtus be dead; and it would be still more satisfactory to operate when putrescence is begun, as this would facilitate the dissolution of the junctures. In brachial presentations, the putrescency is known by the state of the arm, ascertained easily as it lies under the eye of the operator.

You will ask me, perhaps, in concluding the subject, how it is that the transverse cases terminate, when committed entirely to Nature; the accoucheur, forbidden by the patient, or being incaeable of accomplishing the delivery, forbearing to interfere. When the child lies across in the pelvis, it so rarely happens that these cases are committed to Nature, that we have really little opportunity of knowing their natural termination; but it is highly probable that, in some few cases, the women would die undelivered; while in others, perhaps most caaes, the fœtus, softened by putrefaction, would come to pieces in the cavity of the uterus, or be pushed away by a spontaneous evolution, the mother ultimately recovering, or sinking in consequence of lacerations and contusions, exhaustion, or the like.

Of turning, we shall treat at our next meeting.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXI.

On Sulphur, and its Combinations with Oxygen.

The next substance on our list is *sulphur*, or brimstone, as it is commonly called, a body which, in the present state of our knowledge, is called primary, or elementary, because it has not been resolved into any more ultimate elements. Not many years ago it was regarded as a compound of sulphuric acid and phlogiston, and it serves to show us how uncertain chemical science often is, even when founded upon experiment; but the whole of that theory has been subverted, and it is now considered as a simple body.

It is found native in a great variety of forms, independent of any volcanic origin. It is met with in the crystalline and in the massive forms in great abundance, forming a variety of combinations with the metals; and in fact the greatest number of the metals are found united with it in the form of sulphurets. It is often found crystallised, as you see here, and the primitive form of the crystal appears to be an acute octohëdron, with an oblique base; its crystals also possess, in a high degree, a double refractive power. Sometimes the crystals are stylactites, in which form sulphur is often found in commerce, and before it is brought into the market it is prepared by fusion; it is often sold in a state of powder, which is obtained by sublimation, and it then constitutes what is called flowers of sulphur, or sublimed sulphur. It is generally met with in rolls, obtained by subliming the sulphurets of the metals and then melting the sulphur and casting it into moulds; but it is unfit for the manufacturer of sulphuric acid, or for bleaching, in that state. The flowers of sulphur, as they are called, are obtained by subliming the native sulphur and receiving the product in a proper chamber; and this is the form in which sulphur is most frequently used for pharmaceutical purposes.

It is a matter of some importance, generally, to be able to judge of the purity of sulphur, and this may easily be done by putting a little of it upon a hot iron sublimer; if the whole of the sulphur be driven off and nothing be left, it may be regarded as pure. Another mode of trying its purity is, to pour hot oil upon a given quantity of sulphur and boil it, then pour it off and boil a fresh portion of oil with the residue, and repeat the process again and again, and if the sulphur be pure it will be perfectly dissolved in the oil. This constituted the ancient balsam of sulphur.

At all common temperatures it has a slight smell, but if you warm it a little its odour is more prominent. At a temperature of 130° it begins to arise slowly in vapour, and is very odorous; at 225° it liquefies; at 300° it forms a paste of a brown colour, which is used to take impressions of medals and seals; and at about 600° it speedily sublimes. Sulphur is used extensively for bleaching various cotton goods; great quantities of it are employed in the manufacture of gunpowder, and of sulphuric acid; and no inconsiderable quantity is employed in making matches, because it takes fire at a low temperature, and the flame of the sulphur producing heat enough to ignite a candle, or other bodies brought into contact with it.

There is a preparation of sulphur, used for pharmaceutical purposes, which is obtained by precipitating sulphur from some of its alkaline solutions by an acid, which, when washed and dried, is in the form of a yellowish grey impalpable powder: it has been considered to consist of a compound of sulphur and water, and has been called milk of sulphur, or the *precipitated sulphur* of the pharmacopœia.

The combinations of *sulphur* with *oxygen* are *four*, but I shall only give you an account of two, namely, the sulphurous and the sulphuric acids; the two others, the *hypo-sulphurous* and *hypo-sulphuric* acids are of no importance in the insolated state, but they form some interesting compounds with lime and baryta, which will be afterwards pointed out. On the table behind me you will see, that the proportions in which these combinations occur are—

First,—1 volume of sulphur 16, which is the equivalent of sulphur, and 1 of oxygen 8; producing 24 parts of *hypo-sulphurous acid*.

Secondly,—1 part of sulphur 16, and 2 of oxygen 16; producing 32 of *sulphurous acid*.

Thirdly,—1 part of sulphur 16, unites with two volumes and a half, or five proportionals of oxygen 20; to form *hypo-sulphuric acid*; and

Fourthly,—1 part of sulphur 16, unites with 3 of oxygen or 24; to form 40 of *sulphuric acid*.

In order to obtain *sulphurous acid* we have recourse to the direct process of burning sulphur in oxygen. Now if we make this experiment, we find that the volume of the oxygen is not at all altered, namely, 100 cubic inches of oxygen, by combining with 100 cubic inches of sulphur, produce 100 cubic inches of sulphurous acid; so that its composition is easily learned by the increase of weight. We know the weight of the 100 cubic inches of oxygen, and if we also weigh the sulphur before combustion, we shall find that the weight of sulphurous acid produced is exactly the amount of the total weight of the two, or, in other words, the increase of weight obtained in the acid is exactly equal to the weight of sulphur dissolved. If you choose to say that these bodies unite in equal volumes, by mixing the sulphur with the oxygen in the state of gas, then it will be found that the two volumes are reduced into one. This acid has a suffocating nauseous odour, and an astringent taste; it instantly extinguishes the flame of a taper, and destroys animal life; it destroys vegetable colours, and is therefore useful in bleaching; at first there is a reddening effect produced, but after a time the vegetable colour is entirely destroyed. You find, therefore, that straw hats, cane goods, and other light articles, are bleached with the fumes of sulphur; but it is necessary for this purpose that the sulphur should be pure.

Now 100 cubic inches of sulphurous acid weigh twice as much as 100 cubic inches of oxygen, namely, 2,222. The metal potassium burns in it with great ease, provided it be introduced into it in a state of ignition, and therefore, as far as potassium is concerned, this gas is a supporter of combustion, and we cannot help looking at this fact with some interest in reference to the French theory of acidification; it is decomposed in the same way by charcoal and sodium, and probably by several other metals, but in all the cases of combustion of those metals in the *ous* acids alkalies are produced. Under pressure, sulphurous acid readily assumes a liquid form, and it is hence contained in a tube, under the pressure of about two atmospheres; the moment the end of the tube is broken off, and it will assume again the gaseous form. In consequence of the low pressure under which this gas becomes liquid, it is a very fit one to show the effect of pressure in rendering gases fluid. It is also easily obtained in the liquid state by cold. The sulphurous acid combines with ammonia and produces a sulphite of ammonia, but it is not a salt of any importance, and therefore not worth while to enter into its description at length. We find it sometimes in the crystalline form in the interior of vessels in which the solution is kept; the crystals are four and six-sided prisms, soluble in their own weight of water, and having an acrid taste; it is composed of 32 acid and 17 ammonia; its equivalent is therefore 49.

Now then, we come to the *sulphuric acid*, or *oil of vitriol*, which is a highly important acid.

In order to make sulphur combine with these proportionals of oxygen, we must have recourse to some indirect method, for if the two bodies are merely presented to each other, sulphurous and not sulphuric acid, will be obtained. The mode of doing this, is that introduced into this country originally by Dr. Roebuck, by burning sulphur and nitre together, namely, eight or ten parts of sulphur with one of nitre. The manner of producing it is shortly this: the sulphur and nitre are burned in chambers of 30 or 40 feet square, lined with lead, in which certain apertures are made to permit the access of air, and in the bottom of which there is a certain quantity of water to absorb the gas. I may imitate this process here, by burning some sulphur and nitre under a glass bell, in the bottom of which there is some water in a shallow vessel to absorb the gas with which it becomes saturated during the combustion. This fluid becomes a weak sulphuric acid, and the manner in which the weak acid is concentrated will hereafter be described. (The experiment was made and exhibited to the class, when Mr. Brande resumed.) You see, that as the mixture goes on slowly burning, it produces copious fumes, which are absorbed by the water at the bottom of the vessel, and that acid is thus formed, may be readily shown by the reddening of the liquid used to absorb it, which was coloured with a vegetable blue. When the water in the chamber of the manufacturer has imbibed a certain quantity of acid, it is conveyed through a leaden pipe into a leaden evaporator, where it is evaporated until it has acquired the specific gravity of 1600 or 1700, water being 1000; and when the solution has attained this specific gravity, it acts upon the lead, and is then further evaporated in platinum or glass vessels, which is generally done in retorts, and this process is called *retorting* the acid. All this is done merely for the purpose of driving off the water. The specific gravity of sulphuric acid is 1.80, or 18, water being 10.

When carefully prepared it is colourless, but it generally acquires a pale yellow tint, sometimes deeper than at others, and if any carbonaceous matter falls into it is turned black. When of a specific gravity of 1.8, it boils at 620°, or thereabouts; when at 1.7, it boils at 435° and freezes at 40°, but if the density be either increased or diminished, a greater degree of cold is necessary for its congelation, which is singularly modified by the quantity of water it contains. Its boiling point diminishes with its dilution; at 1.6 it boils at 350°, and so on. If exposed to air it absorbs moisture with considerable rapidity, increasing in volume and diminishing in weight, owing to its absorbing water. It has been used occasionally as an hygrometer to ascertain the state of dryness of the atmosphere, and it has also been used for the purpose of drying gases, and in Mr. Leslie's freezing experiment you know it was used to absorb the vapour in the vacuum of the air pump. It even absorbs moisture when hot; therefore the necessity of evaporating it in retorts, after it has acquired a certain specific gravity, or vessels in which the air does not gain ready access.

The *uses* of sulphuric air are exceedingly numerous and important in the arts, but these will be pointed out to you by and by. It is manufactured on an enormous scale in and about London.

Now as to the theory of its formation.—It is found that when it is passed through a red hot tube, it is resolved into oxygen and sulphurous acid; and in its dry state we find it to be composed of 1 proportion, of sulphur 16, and of three of oxygen 24, so that 40 is the equivalent of the acid. To determine the purity of the acid for commercial purposes we are in the habit of evaporating it in a platinum cup, and if there be no residue left it is tolerably pure; but it sometimes contains sulphates of lead and potash; the lead may be detected by diluting the acid, when a precipitate will be formed, and the potash by evaporation and crystallization. Then having ascertained its purity, the tables found in chemical works will give you the real amount of acid in the fluid acid of any specific gravity. For example, we will take 100 parts of the liquid acid, or the oil of vitriol of commerce of a specific gravity; if 1.548 will contain 81.54 parts of dry acid, then 1 part of liquid acid at a specific gravity of 1.007 will contain 0.87 of dry acid, so that such tables are of the greatest value to the manufacturer. There is a substance mentioned by Dr. Thomson, and called by him *glacial* sulphuric acid, which he thinks is the acid in a pure state, but we know little of it. The *theory of its formation* is this; when sulphur and nitre are burned together in atmospheric air, the sulphur unites with the oxygen of the air and forms *sulphurous* acid, which, acting upon the nitre, causes it to give out *nitric oxide gas*, which, coming into contact with the air, imbibes a portion of its oxygen, and forms *nitrous acid*. Now the sulphurous and nitrous acid gases combine and form a body, which would assume a solid form if water were not present; but the moment they come into contact with water, the nitrous acid gas is decomposed and gives oxygen to the sulphurous acid gas, and forms by unity with it oil of vitriol, or sulphuric acid. The nitric oxide gas into which the nitrous acid gas is there converted, mixes again with the oxygen of the air in the chamber, and again coming into contact with the water, gives a fresh portion of oxygen to the sulphurous acid to convert it into the sulphuric. So that the nitric oxide gas becomes a sort of carrier of oxygen from the air to the sulphurous acid to form it into the sulphuric acid.

This complicated process was elucidated by a reference to tables and by experiment, and Mr. Brande concluded by observing, that in the next Lecture the remaining combinations of sulphur would be considered.

ROYAL INFIRMARY, EDINBURGH.

Injuries of the Head—Strangulated Hernia—Removal of a Tumour from the Neck—Operation for Empyema—Depression of a Lenticular Cataract—Wound of the Radial Artery—Phlegmonous Erysipelas—Appointment of Dr. Cullen as Physician—and Remarks on the State of the Surgical Wards.

Many of the preceding cases appeared and vanished in so rapid a manner, that they afforded little time for the interference of art, and a still less opportunity for the observance of any pathological phenomena in their progress, treatment, and termination, except those which have been frequently recorded in similar instances. Of this description, in particular, were the three first enumerated, which run their course in less than from ten to thirty hours. Such were the injuries of the head, and strangulated hernia; one of the former of which occurred in a boy, brought to the hospital in a state of insensibility about noon, after having been precipitated from the top of a house. He died in the course of the following day, and no examination, of which I am aware, was made after death. The second was that of a police-man, who, it was evident, from the nature of his accident and symptoms, had a fracture of the base of the skull, having fallen, while in a state of intoxication, down a stair of twenty steps on the occiput, and having bled freely from both ears, and vomited matter deeply tinged with blood. On his admission, there was a considerable tumefaction of the scalp, over the part on which he fell; but no fracture was detected until an examination was made after death, when blood was found extensively diffused under the scalp, and in various parts of the brain, with three fissures of the cranium, one of which extended through the petrous portion of the temporal bones.

The case of strangulated hernia was still of shorter duration; but not having seen the patient or the operation, who was brought into the hospital and operated on at a late hour, I can offer no description of his symptoms, or of the treatment adopted. It appeared, however, from the house report, read to the pupils on the ensuing morning, and to which Dr. Ballingall called their particular attention, though his reason was not very obvious, that the man had been affected with strangulated hernia from the Monday preceding his admission; was brought to the hospital on Saturday evening, when bleeding, the warm bath, the taxis, tobacco enemas, were successively employed without effect; and that on the arrival of Dr. Ballingall, at half past eight o'clock the same night, the operation for the relief of the stricture was had recourse to, and that in about two hours and a half after its performance the patient died. It is a rather singular anomaly in the history of so extensive an establishment as the Royal Infirmary, situated in the centre of the most densely populated part of a great city, that this should be the second or third case of the kind presented within the term of more than fifteen months; and no less surprising than derogatory to the medical policies for the poor of Edinburgh, that a man should have been an entire week labouring under strangulated hernia, without seeking or being afforded relief in the precincts of a manufactory of doctors.

The only circumstance remarkable in the tumour removed from the neck, was its having appeared on the site of a similar but much larger tumour, which had been extirpated in the hospital thirteen years ago. The present one commenced about three years since, was situated in the hollow space between the mastoid process and angle of the lower jaw, apparently of a fatty consistence, encysted, and about the size of a plumb. Being merely attached to the loose surrounding cellular membrane in the fold of the neck, its removal presented no difficulties, and has produced no inflammatory symptoms; the wound, on being opened at the first dressing, exhibited a perfect specimen of union by the first intention. The operation was performed by Dr. Hunter.

The case of wound of the radial artery was entirely exempt from the troublesome consequences which occasionally result from accidents of this nature. The patient, W. Paton, aged 25, was admitted on the morning of the 8th of November, immediately after receiving a wound about three inches in length across the forearm, situated about the same distance from the wrist, and inflicted by the breaking of a bottle in his hands. The trunk of the artery, and tendon of the supinator radii longus muscle, were both divided; the extremities of the vessel were secured by two ligatures by the house surgeon, the wound dressed, and saturnine lotions applied. The constitutional and local symptoms were comparatively inconsiderable, being readily controlled, the one by aperient medicine, the other by poultices. The ligatures separated on the eighth day from their application; but having subsequently experienced some pain in the arm, accompanied with an unhealthy state of the granulations, an erythematous blush above the wound, and still more recently having had pain of head, slight shiverings, and other indications of threatening indisposition, the poultices were re-applied; he was bled very properly to deliquium, twice or thrice; had emetics and purging medicine freely administered; all which fully answered the ends of their exhibition, the patient being now free from all complaint, and the ulcer all but entirely cicatrised. The particulars of these changes, and the modifications of the practice, are recorded in order before me; but it is scarcely necessary in such a case, to encumber the page with a formal detail of dates, doses, and directions.

Neither does the case of cataract demand a lengthened notice. The affection, situated in the left eye, commenced, about three years ago, in a man of 68 years of age, and in five weeks after the vision of the organ was almost completely lost. The cataract was of the common lenticular kind, the iris sensible to impressions of light, and, as generally happens, he could discern, though indistinctly, objects placed in a direction lateral to the axis of the eye. The vision of the right eye has also become impaired, within the last six weeks, behind the pupil, of which an incipient opacity is discernible; and immediately on a line with the nose, below the internal canthus of the eye, there is a small acuminated wart covered with a scab, which he states has been discharging matter, nearly in its present form, for upwards of thirty years. The operation was performed in the theatre by Dr. Hunter, by lacerating the capsule of the lens, and depressing the cataract. Considerable constitutional and local disturbance have followed; for which, leeching, fomentations, and aperients, have been employed, but without, at the period of this report, entirely allaying the excitement produced by the operation, the eye being inflamed, the pain of head considerable, the tongue furred; starting during sleep frequent. The character and constitution of the patient render the case, at present, extremely unpromising.

The attention excited on the subject of erysipelas, and it being an object, at least of curiosity, to know the treatment adopted in this disease by different practitioners and in different places, have induced me to report the principle of the practice acted on in this case, without awaiting its final result.

T. Fogo, aged 58, was admitted at noon on the 11th December, for phlegmonous erysipelas of the arm. The inflammation, existing in various degrees of intensity in several parts of the limb, extended from the insertion of the deltoid muscle to within a few inches of the wrist. Throughout the greater portion of this extent, the surface of the member presented the appearance of a superficial burn, the cuticle being peeled off in many places, while in others, the process by which Nature attempts to throw off the dead cellular membrane under matter, was commencing in small superficial ulcerations of the cutis, covered with a mixture of serum and yellow specks of tenacious matter. Nearly over the olecranon, there was an ulcer, about an inch and a half in circumference, from which flowed a copious thin purulent discharge. A probe passed into this orifice could be readily forced to a considerable distance, almost in every direction, between the integuments and the muscles, indicating that the separation of these structures had completely been effected by the death of the connecting cellular tissue. The disease was excited about a week previously to his admission, by falling on his elbow in descending a stair; but, thinking nothing of the accident at the time, he continued at his business that day and the next, when the pain and stiffness of the arm compelled him to desist from his occupations. He immediately applied at one of the dispensaries, when twelve leeches at each time were thrice employed; poultices ordered to the limb, and purging medicine to be taken. These means failing of checking the progress of the complaint, he was recommended to the Infirmary, where he arrived in the state described, and was left with the solace of another poultice in this condition for near twenty-four hours, to await the presence of Dr. Hunter at the next visit on the following day. Notwithstanding the neglect of the case, and the urgency of the symptoms, the Doctor, on his arrival, after serious deliberation, and examining the patient minutely, reluctantly called for a scalpel, and made two enormous incisions of about two inches in length, each in the most prominent parts of the swelling; and directed, that when ten ounces of blood had flowed from the wounds, they were to be filled up with dry lint, to prevent a further hæmorrhage; and the limb to be then enveloped in a large poultice. Small as these incisions were, they were found on the day following to have reduced the swelling, redness, and pain of the limb so considerably, that the Doctor was induced to try one or two more at the visit of the same length, with similar directions as to stopping the hæmorrhage; a proposal to which the patient cheerfully submitted, from the relief experienced from the former openings. Of the subsequent treatment and symptoms, it is merely necessary to state, that the suppuration was profuse; that the dead cellular membrane, from the imperfections of the openings made, is not yet entirely come away; that bark, quinine, wine, and in consequence of a diarrhœa, catechu mixture, with chalk and opium, were severally administered; and that, though the patient is now, from the 12th to the 22d of December, in the house, he is suffering from much irritative fever, and that the arm, under the most favourable change, cannot be well in three weeks, whereas, if free incisions had been made on his admission, there is every reason to believe (for there were no contra-indications against such practice) the man would now have been dismissed the hospital perfectly cured. From the treatment of this case, both at the dispensary and hospital, and from many others which I have witnessed there, it does not appear that the practice of extensive incisions, as lately stated by a speaker in the reports of the Medico-Chirurgical Society, are generally practised in Edinburgh, but a modification of the new and old plans of treatment, small incisions, with wine and bark

The details of the case of empyema and operation, requiring from their importance, a more extensive notice than my space would permit me to devote to them at present, I shall defer both to a future occasion, to congratulate Dr. Cullen on his appointment as physician, whose absence will certainly be felt in the surgical wards. Such, indeed, is the avidity with which clinical instruction is sought after, where expectations of this kind are gratified, that the ward in which Dr. Cullen now practises is daily thronged by a crowd of pupils, though previously seldom entered by a single student. Whether his assumption of the ancient doctorial costume, having mounted, as the phrase goes, a magnificent wig, and suspended a genuine gold-headed cane from his breast during the discharge of his official duties, has any influence in assembling the multitude, I cannot pretend to determine; but well worth beholding, as these revivals of venerable relics are, I am more inclined to believe, that his proficiency on the stethoscope, amenity of manner, and willing communication of instruction, present still stronger attractions for the pupils of the house. His appointment, of course, has made a vacancy in the surgical department of the Infirmary, which requires a thorough reformation in the manner of conducting the business; the subject ought to be fully considered before the election of his successor, which it appears has been postponed to January.

Scotus.

Edinburgh, Dec. 24, 1826.

ST. THOMAS'S HOSPITAL.

CASE OF STRANGULATED HERNIA.—OPERATION, AND FATAL TERMINATION OF THE CASE.

Mr. Green performed the operation in a case of strangulated scrotal hernia, on Friday, the 7th of December, under the following circumstances:—

The patient, a stout muscular Irishman, was admitted into the Hospital on the afternoon of the 7th, and placed in Henry's Ward. The account which he gave was, that he had been for some days past labouring under constipation of the bowels, with pain, which had been treated as colic; he was, in fact, sent to the Hospital with a written statement to this effect from his medical attendant, no allusion being made to hernia. Castor oil, pills of colocynth, and various purgatives had been given, some of which were rejected and others retained, but only one slight evacuation was produced from the bowels, and this on the 5th, two days before admission. The case being considered "*medical*," the apothecary saw the patient, and he speedily discovered the source of mischief to be a hernial swelling on the right side, to which, however, no means had been directed. It now being transmuted into a "surgical case," Mr. Green's dresser took charge of the patient. He found a swelling of about the size of a hen's egg, taking the usual course of inguinal hernia, and occupying a portion of the scrotum; the tumour was tense, and tender to the touch, and its integuments were inflamed. The pulse was small and feeble,—the man had vomited several times, and he had occasional hiccup; his countenance bore no marked anxiety of expression, but there was considerable tenderness of the abdomen. Upon questioning the man with respect to the duration of the existence of the tumour, he said that he had had a swelling at this part from his birth, to a certain extent; but that it was now much larger than usual, as it had been on former occasions, until partially reduced. He had never worn a truss. The warm bath, with blood-letting and the taxis, were had recourse to by the dresser without effect, and in consequence Mr. Green was sent for, who, as soon as he had seen the patient, decided on the propriety of an

Operation.

The different layers of fascia were more than usually thick, which is remarkable, inasmuch as the man had not worn a truss. The hernial sac contained a large quantity of serum, and a fold or knuckle of intestine (apparently the ileum) which was of a dark chocolate colour, with several spots on its surface, apparently not gangrenous, but patches of adhesive matter. There were some slight adhesions between the intestine and sac—the hernia was found to be of the congenital kind. The internal ring was freely divided by means of a bistory passed upwards on a director, but still the stricture remained; and upon introducing the finger, it was found to arise from a strong band of adhesive matter, girting the intestine beyond the ring. This being cut through, the gut was liberated, and was then returned into the abdomen without difficulty. The wound was closed with a suture, strips of adhesive plaster, and a compress of lint; the patient was then placed in bed with his knees flexed.

No further means were had recourse to, until the following day at noon,* at which time we visited the patient in company with Mr. Green. He had passed a tolerably good night; the bowels had been relieved once; the tongue was covered with a white fur, but it was moist; there was a good deal of thirst, and the pulse was about 100, sharp and full. He had vomited once in the night, after taking freely of gruel; his countenance was natural, abdomen tense, and slightly tender on pressure. Ordered to apply twenty leeches to the abdomen, with the subsequent use of fomentations. *Two drachms of sulphate of magnesia* to be taken in mint water every two hours, until the bowels should be freely acted upon.

9. Noon. The patient has been restless during the night, but now seems inclined to dose; the pulse is not so full as yesterday, and it is compressible; the tongue is coated with a white fur in the centre, but it is red at the tip and edges. The abdomen is tense, tender, and somewhat tympanitic; the bowels have been very much disturbed, a great number of watery stools having been passed; the medicine was in consequence discontinued at eight o'clock this morning. Two injections of soap and water were given last night, and they returned mingled with fæculent matter. Leeches were applied this morning.

In the evening the pulse was small and quick; the abdomen was very tender, and much distended; the pain was observed to be the greatest over the course of the colon, and in the right inguinal region. *There was no sickness*; the thirst was excessive.

Twenty leeches were directed to be applied to the abdomen; one drachm of the sulphate of magnesia to be given every four hours, with five minims of laudanum. Blood-letting from the arm to be had recourse to, if the pulse should rise.

10. Noon. The man is evidently much worse; the pulse is small and weak; the skin cold and clammy; the bowels have not been disturbed since yesterday evening;

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* It is an invariable practice with Mr. Green (borrowed from the Clines) not to make any attempts on the patient's bowels with purgatives for several hours after the operation for hernia, arguing, that the increased peristaltic action and irritation induced by purgatives, have a tendency to produce inflammation in parts already greatly predisposed. Such was the principle held in view, and the practice pursued in the case under consideration; and we are especially led to mention it, because we observe that in a quarter professing to be "*scrupulously accurate*," it is stated that "*two injections were given immediately after the operation*"!!

two doses only of the medicine have been given. He was seen by the dresser in the night, when, in consequence of the pulse having become much more frequent and smaller, blood was taken from the arm to the amount of sixteen ounces, and slight faintness was produced. At the present time he is constantly turning about; his breathing is hurried and laborious, and the tongue is thickly coated with a dry yellowish fur. The pain in the abdomen is urgent, and the countenance indicative of much distress. The blood taken from the arm was both buffed and cupped.

He went on gradually getting worse, and died in the afternoon; the body was immediately removed, and no examination was permitted.

Mr. Green offered some clinical remarks upon this case, on Saturday the 15th ult; after recapitulating all the circumstances as noted above, he remarked that he was disposed to attribute the occurrence of bad symptoms to the excessive purgative action set up in the bowels on the day after the operation. This, in his estimation, was the exciting cause of all the subsequent mischief; for up to the period when purging commenced the man was upon the whole doing well.

OPERATION OF LITHOTOMY, BY MR. TYRREL.

The patient in this case is 34 years of age, and from the county of Kent He had suffered the most excruciating torments from the calculus in the bladder, passing bloody urine occasionally, and a large quantity of mucus daily. The general health at the time of the operation had evidently suffered much; he was pallid and care-worn in appearance, and apparently very irritable.

Mr. Tyrrell made the external incision with a common scalpel, and cut into the bladder with the long, straight-backed knife, closely resembling that known by the name of Mr. T. Blizard's. A calculus was extracted of a very singular kind; it was nearly as thick as the little finger, and about an inch and half in length, apparently composed of lithic acid; as it was grasped lengthwise and drawn out in that direction, no difficulty occurred in its extraction. There was very free bleeding from an artery of considerable size, which, however, was restrained by pressure, and when the man was put to bed shortly after, had entirely ceased. In the evening there was some bleeding, but it was stayed by pressure with dossils of lint, and early on the following morning there was further hæmorrhage; this was suppressed by the nurse, simply by the finger. From this time the patient went on well, and at the date of this report, (Jan. 2) the eighth day after the operation, is in a fair way of recovery.

There appears to be some reason for believing that an extraneous substance was introduced into the bladder, which acted as a nucleus; but the man is altogether unwilling to state the precise nature of the substance so introduced.

DR. ELLIOTSON'S

CLINICAL REMARKS

ON CHRONIC AFFECTIONS OF THE BRAIN.

Observations upon, and denial of, Magendie's Opinion respecting the source of Effusion; with Cases.

There have been of late, and indeed are at present, within the Hospital, several interesting cases of chronic affection of the head, and upon these cases Dr. Elliotson made the following remarks, in a clinical lecture delivered on the 1st of December.

He observed, that the greater number of patients thus affected were *males*, from the age of 25 to 40, which is generally the case, for with children, whose excitability is very great, affections of the brain soon wind up in hydrocephalus, convulsions, &c.; and in old persons, cerebral affections speedily end in apoplexy, hemiplegia, &c. With respect to the greater number of *males* being affected, which is a circumstance invariably observed, Dr. Elliotson attributed it to the fact of their being more exposed to its causes than females; for in many of the cases the disease was clearly to be traced as the effect of blows and falls met with in laborious occupations.

The symptoms under which the patients in general laboured were—pain of the head, in some cases confined to the forehead; in others, to the vertex; and with others, affecting the whole head. There was, in addition, heaviness or drowsiness, and vertigo, a sense of throbbing and heat of the scalp, flashes of light, dilated pupils, tinnitus aurium, and even noises, as if from voices, also visions. With a man in William's Ward, there was a sensation felt as if every thing were passing under him backwards, and this chiefly if he stood up. In the case of a patient in Isaac's Ward, vertigo was the most prominent symptom, the headach being very trifling. With most of the cases, there was dulness of hearing and of vision, and a man in Edward's Ward was affected in a very peculiar manner as regards vision; he appeared to be looking to the left of all objects, when, at the same time, he was actually looking directly at them. The left iris in this case was nearly immoveable, except when a strong light was thrown on the opposite eye; he had numbness of the right thumb, as far as the metarcarpus, and of the right side of the face as low as the angle of the mouth; he often complained of numbness in the toes and fingers.

With chronic affections of the head, Dr. Elliotson further observed, that sometimes all the senses become impaired; the mind is generally somewhat confused, and at last hemiplegia, delirium, or stupor supervenes, occasionally a convulsion or epileptic paroxysm is produced, and often epilepsy becomes confirmed. In fact, said Dr. Elliotson, the symptoms are those of chronic inflammation of the brain, or its membranes, and as the local mischief increases, various symptoms arise, according to the particular parts of the brain implicated.

With respect to the pain attendant upon these cases, Dr. Elliotson observed, that it rarely extended below the zygomatic process of the temporal bone; and this forms a distinction from rheumatic, or neuralgic pains. The suffering in the latter case is generally increased in the afternoon and beginning of the night, but in the former is for the most part worse on waking in the morning. In the commencement of rheumatic pain, the whole of that part of the head in pain is very sore to the touch, and there is often rheumatism in other parts of the body. The treatment here, and with neuralgic pains, is to exhibit quinine or arsenic in the intervals, and opium, or *stramonium*, just before the commencement of the paroxysm. The stramonium, Dr. Elliotson observed, is an " invaluable remedy." A grain of the extract should be given daily, as soon as the pain commences, and repeated every three or four hours, until the pain is relieved, or unpleasant symptoms occur, as vertigo, dimness of sight, &c.; it should then be omitted till these symptoms subside, when its use may be resumed.

In the post-mortem examination of cases of chronic disease of the brain, Dr. Elliotson said, that he had met with various morbid appearances, as effusion in the ventricles, or on the surface of the brain; the thickening of the membranes, ramollissement of the substance of the brain, tumours, and disorganisation.

The treatment of these cases Dr. Elliotson enumerated as consisting in a very spare diet; very open state of bowels; application of cold to the head; repeated blisters to the occiput, forehead, and temples; setons, or issues, in the neck. In addition, after blood-letting, cupping and leeching have been repeated (almost endlessly), according to the strength of the patient and violence of the symptoms, and without benefit; it is a curious fact, that cupping on the hypochondria, or at the epigastrium, is often productive of much good. This practice Dr. Elliotson learned from a foreign physician, and has since adopted it in many instances. He considered mercury as a remedy that should never be omitted; its full effect is not required in every case, but there are many which, unsubdued by blood-letting, yield when the mouth becomes affected.

Having said thus much generally of chronic affections of the head, Dr. Elliotson exhibited the brain of a patient lately dead, which presented some very remarkable appearances. The patient in this case, a man 28 years of age, was admitted into the Hospital on the 11th of October. He had been ill three weeks, and said that about two months previously to admission he received a violent blow on the occiput, by falling upon the edge of the pavement. About a month afterwards he began to experience violent pain in the occiput, which was at length sometimes so severe as to deprive him of reason. He had vertigo, throbbing over the whole head, and both sight and hearing were much impaired. Cupping, leeches, blisters, cold lotions, and mercury to ptyalism, were employed as means of relief after the man's admission, but at length he became comatose, with a dilated state of the pupil, and in this condition died.

There was serous fluid found on the surface of the brain, and also in the ventricles, the whole amounting to six or seven ounces. On the floor of the ventricles was observed a quantity of coagulable lymph, soft, in flakes, and almost like pus, attached, and not floating in the serum. There was a quantity of limpid fluid on the medulla spinalis.

Dr. Elliotson considered this case to be very instructive, as showing the precise effect of injury, and more especially as mutilating against the opinion advanced by Magendie, in his Journal de Physiologie for January last, wherein he states, that the fluid found in the ventricles comes from the spine entirely, or in the greater part, and that, in consequence, our curative means should be directed to the spine, and not, as is usually done, towards the head. He says, that he has found (as Cotugnus did), that in the natural state, a quantity of water exists on the surface of the brain and the spinal marrow, particularly of old persons, when these parts have shrunk, and no longer fill the bony cavity. He (Magendie) also affirms, that the fluid of the spinal marrow communicates with that on the brain and that in the ventricles; in fact, that is one fluid. The cavity of the ventricles, he says, communicates with the surface, at the point of the calamus scriptorus of the fourth ventricle. He thinks the fluid is secreted by the pia mater, and lies between this and the arachnoid membrane, so that, in collections of water, the arachnoid is geratly raised. *We*, observed Dr. Elliotson, had hitherto supposed that the fluid collected in the arachnoid, and that the ventricles were lined with this membrane, which thus contained also the fluid accumulated in them; and *Bichat* teaches, that the arachnoid tunic enters the third ventricle along the *venæ Galeni*. But Magendie denies there is any opening here, and thus greatly confuses the anatomy of the arachnoid and pia mater; for, if the fluid on the surface is under the arachnoid and runs into the ventricles, then it must also be under the arachnoid in the ventricles, which is not the case, or the arachnoid cannot line the ventricles. The lining must be the pia mater, or some distinct membrane. In the case under consideration, Dr. Elliotson thought that the fluid was in the arachnoid or the surface of the brain; and the fluid in the ventricles was precisely of the same kind, as though secreted by a similar structure. That it was produced in the ventricles, Dr. E. said, might fairly be asserted from the fact, that the lining membrane of these parts had been so much excited as to throw out lymph in considerable quantity. Magendie, however, maintained, that the membrane of the ventricles is not sufficiently vascular to secrete, and adduces a case in which the fluid clearly was secreted in the spinal marrow, and subsequently entered the ventricles. But, continued Dr. Elliotson, to infer from this solitary case, that in diseases where the ventricles are much distended, we should direct our curative means to the back as well as the head, is unfair. In his case, he (Dr. Elliotson) thought there was proof positive that serous fluid may be formed in excess in the head itself, and more than this, in the ventricles themselves. The whole case, as he conceived, proved also, that the disease originated in the head; the blow was on the head; the pain was at this part, and the functions affected were those of the head. In fact, in by far the greatest number of these cases (and there are always many in the Hospital), the functions deranged are those of the head; the exciting causes, it is found, have been applied to the head; and lastly, remedies directed to the head are of essential service.

MR. ABERNETHY'S PORTRAIT.

To the Editor of THE LANCET.

SIR,—Your Correspondent, a "Bucks Abernethian," complains of the delay of the engraving, and accuses the Committee of not *condescending* to explain the cause: if this gentleman is *really* a subscriber, he must have given his name only, without his address, or he would have secured in this his *quid pro quo*, as the engraving has been finished these two months, and generally delivered; and probably his name is not so well known as to induce them to address it as to "Boerhaave in Europe." With respect to the delay, had he applied to the gentleman to whom he paid the subscription, or to any of the Committee, he would have been satisfied the cause rested not with them: he would have been told that after a *very few* sittings by Mr. Abernethy, Sir Thomas Lawrence left England for Rome, &c. &c., and remained there three or four years, and consequently, the work was to be done after his return: he would have known, likewise, the Committee had not betrayed their trust, by "advancing Mr. Bromley *all* the money, before the work was *half* completed; and that, in consequence, the artist had come to a stand still."* That Mr. Bromley has come to a stand still, is true, but only because he has finished task; and how admirably he has effected this, every one who has seen it can testify; and indeed it has been pronounced by many artists, a first-rate work. The truth is, both the painter and engraver took extraordinary pains in their respective departments; the latter, indeed, resting his future fame and fortune on its result, and I for one, trust it will be the means of advancing both. What your Correspondent means by "I also withheld some circumstances connected with the *origin* of this portrait, which might not have been very agreeably published," I am unable to comprehend; but I fear not, that both the *origin* and *termination* will bear the strictest investigation of your "Bucks Abernethian."

I am, Mr. Editor,

Yours respectfully,

J. B.

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* By the way, this is rather a novel mode of bringing a man to a stand still; does the "Abernethian's" horse serve him these tricks, when he gives him both whip and spur?

THE LANCET.

London, Saturday, January 5, 1828.

THE objects of Charters, the motives of their perversion, and the manner in which they are defeated, were briefly described in a former article, which would have been immediately succeeded by an examination of the expediency, justice, and legality of the *indenture* system of the College, had not the necessity of noticing Mr. Colles' one-sided lecture, in some measure interrupted the progress of our scheme. The several propositions made on that occasion, should be steadily kept in sight in considering the validity of the subsequent observations, and which are susceptible of the highest degree of moral evidence. No legislature, for example, in enacting laws for the regulation of a body so intimately connected with the most important concern of society, as the medical profession, could ever have designed that such laws were to be tortured into pretexts for the aggrandisement of individuals. The legislative intention of Charters, conferred on scientific communities, may, therefore, be presumed to be of the purest kind; for here, at least, there are no political views to influence its rectitude; no barter of some petty civil immunities for secret services and ultra-loyalty; no ministerial member of Parliament to be returned on one side for privileges bestowed on the electors by the other, as occurs in corporations of a different nature. The ends for which Government incorporate these communities, are not more self-evident and beneficent, than their abuse is unconstitutional and general amongst the parties to whom the powers of securing these ends are confidentially intrusted; every university and college of the British empire, having given repeated testimony of the truth of this position in their laws for directing the studies of medical and surgical pupils. Each of these institutions, in fact, has acted on the false assumption, that it was invested with an unlimited authority, for the sole purpose of increasing the emoluments of its public officers. They would appear, from their conduct in this respect, to derive much the same kind of license from their charters to prey on the junior members of the profession, as Adam did from the command of his Creator, to rule over the beasts of the field. Such, in general, has been the spirit of these establishments—a spirit which is now manifesting itself with more than common virulence among a faction in the College of Surgeons in Ireland, and which it is now time to investigate, whether its successful struggles for monopoly would be beneficial to the true interests of that Institution.

Dealing with men so obviously "wise in their generation," as the monopolists undoubtedly are, in one sense of the term wisdom, it may be necessary, in the first place, to define in what circumstances the prosperity or true interest of the College consists, for they of course attach a signification to these words as foreign to their proper meaning as it is favourable to their own purposes. According to the interpretation of these cant phrases by the exclusionists, the most flourishing state, the highest degree of perfection, to which the College could possibly rise, would be that condition of its affairs which would secure to its officers, to the hospital surgeons of Dublin, and their professional dependents and relatives, the most ample opportunities and uncontrolled power of embezzling its whole revenues. Nothing less, in short, than the total conversion of the College into an hereditary commonage of this kind can satisfy their inordinate passion of self-aggrandisement, or convince them that the establishment could be in a prosperous condition under any other circumstances.—Other persons, however, less attentive to personal considerations, and entertaining more liberal views of academic policies and professional respectability, would never suppose that the perfection of either consisted in the circumstance of Mr. Cusack, or Mr. Harrison, having a certain number of apprentices; or in an arrangement which gave to Mr. Colles, or in short to any other member of the College, (for these names are selected merely to represent a genus, not to point a satire,) the power of appointing his nephews, his sons, or his matrimonial relations, to official situations, to the exclusion of more competent instructors. Such men, on the contrary, would be simple and honest enough to believe that the College was in its most flourishing and reputable condition, when it was found realising, to the fullest extent of its capability, those objects which have been already pointed out as the legitimate ends of its establishment. They would be inclined to suppose, that the interests of the College were synonymous with, and inseperable from, the full performance of its corporate duties, which consist in securing competent guardians of the public health; in affording the utmost facility for the acquisition of professional knowledge; and in promoting, by salutary ordinances, the advancement of medical and surgical science. By the faithful discharge alone of these duties can a national institution be known to be in a healthy state, which gives to the native and foreign student, "Colchus an Assyrius; Thebis nutritus, an Argis." The materials of instruction at a solvent price, and scrupulously exacts from him in return the qualifications deemed necessary to the practice of his art. When the sources of information are thus opened indiscriminately to all; when knowledge, instead of pounds, is made the subject of exaction from pupils; when merit is patronised by the seal of corporate sanction, no matter in whom it may be found; and all are freely admitted to an equality of franchise, as well as to those offices which their talents may qualify them to hold; then, indeed, a College, by which these conditions are fulfilled, may be said to be in a state of prosperity, and in the full blow of its reputation.

We shall now see in what manner the old compulsory system of apprenticeship has been, and how far the modification of it, as explained in the comments on Mr. Colles' lecture, may be calculated to invest the College with the attributes of prosperity just described. The first inquiry will occupy us but a very short time, the object of it being virtually abandoned as a useless form of education, and now only supported as the means of securing an occasional apprentice fee to a few of the resident surgeons of Dublin. Being, therefore, entirely given up on the only grounds which should entitle it to attention—its utility, it might be left to oblivion; but that, having done irreparable injury to the College during its operation, any portion of it being retained, must, of course, be productive of similar consequences. The injuries which it has inflicted on the College are extremely various, and cannot well be all enumerated here. By the exclusion of pupils, the College treasury has been deprived of a great portion of its proper revenues, merely to transfer them to the purses of an insignificant fraction of the surgeons of Dublin. With the pecuniary means derived from this neglected source of wealth, the College might have considerably added to its utility and reputation, by the establishment of public libraries, museums, and annual prizes, for the elicitation of talent, and the consequent promotion of science. More intent, however, on exacting large sums for a useless purpose from the pockets of a few pupils, than drawing an ample revenue of moderate charges from students in general, the College deprived itself of the means which would have enabled it to establish that species of fame, which similar institutions on the continent have derived from a liberal encouragement of merit, by prizes and other incentives to studious exertion. This, however, is not the only injury which the system has done to the reputation of the College, it has converted it into a purely provincial establishment, prevented students from other countries from pursuing their studies in the Irish metropolis, and by excluding from its pale men of merit and talent, deprived the institution of that celebrity which individual ability oftentimes confers. To this obnoxious restriction of diplomas to apprentices ought, undoubtedly, to be principally attributed the slow progress of the Dublin College to notoriety, by cutting it off from all communication with the learned of other countries; and the want of that spirit of emulation and scientific character, which distinguishes foreign establishments of the same description. If the College has latterly become better known, if its licentiates have proved themselves at home and abroad entitled to confidence in the practice of their art; and if Dublin be now frequented by pupils from different parts of the world, let it not be supposed that any one of these effects is to be ascribed to a system of compulsory apprenticeship, for the competency of its practitioners is to be solely ascribed to a justly severe form of public examination; and until the local advantages of Dublin for the prosecution of anatomical and other medical and surgical pursuits, were placed before the world through the pages of this Journal, there were not annually *ten* students from other countries in Dublin, for every *hundred* that are residing in that city at present.

From the evils which the old system, in the plenitude of its baneful operation, inflicted on the true interests of the College, the injurious consequences which must result from the retention of any given portion of that system may be readily calculated. These consequences, however, it should be observed, will not be bounded by the laws of proportional causation, for others of a still more dangerous description will spring from the intended modification of the old scheme, as the attempt to diminish, without the entire eradication of, certain diseases, only tends to render them more malignant and of more deadly luxuriance. It is not, therefore, that the contemplated alteration must continue to militate against the development of the capabilities of the Irish College, and to prevent the realisation of the objects of its establishment, in proportion as this modified plan excludes licentiates from an equality of privilege, from a participation of official emoluments, and by a dissociation of the talents and reputation of its future members. These would be, in themselves, serious evils; but there is one much worse, the fatal usurpation of the corporate rights of the College by a few resident surgeons of Dublin, which the designed measure must eventually enable them to accomplish. The manner in which this greatest of evils may be effectuated is sufficiently obvious. The majority of students, as unwilling as they are unable to meet the expenses of an apprenticeship, would necessarily disqualify themselves, by taking a licence without paying an indenture fee, from interfering in the proceedings of the College. The number of its qualified members must consequently decrease annually, until it become ultimately the manageable monopoly of a family faction of the hospital surgeons of Dublin. That this is a part of the scheme in contemplation, we have the positive oral evidence of the contrivers of the new charter, who, as Mr. Carmichael has fearlessly published to the world, have had the base audacity to illustrate their guilty intentions by stating, before the members of a liberal profession, the example of the most contemptible and degraded faction on earth, the Corporation of Dublin, in excluding, in a somewhat similar manner, their Roman Catholic fellow citizens from political influence, as effectually as if seconded by positive enactment. The effects which would follow this modification, their opposition to the true interests of the College, and their intentions, are made perhaps sufficiently clear to be comprehended by every unbiassed mind. But if what has been advanced for the present on the subject should not convince the upright portion of the College, or that part of it which is accessible to reason and argument, we would refer them for further proofs of the danger of any measure which has for its object the separation of a scientific body into freemen and slaves, as exemplified in the licentiates of the Irish College of Physicians, and the London College of Surgeons—those Helots whom, like the Spartan father, we would point out to the profession of both countries, to warn them against the servitude and degradation of their successors.

The removal of Dr. Cullen from the surgical wards of the Edinburgh Royal Infirmary, suggests the propriety of directing the attention of the Governors to the important duty which devolves on them in the appointment of his successor, and to the necessity of making a reformation in this department of the Hospital a part of their duties on this occasion. To convince them of the necessity of such a reformation, it will be sufficient to contrast the state of the surgical with that of the clinical wards. In the latter, the business is conducted as profitably for the student as circumstances, perhaps, would admit. The attendance of the physicians is punctual; the cases are described on their admission; the symptoms daily reported as they arise; the prescriptions reduced to a scientific form; and all regularly announced at each visit. In the performance of these several duties the clerks are assisted by the medical officers, so that from the manner in which the business is here transacted, the student, even though he may not be attending the clinical lectures or receive any oral assistance at the bed side of the patient, is enabled to form a tolerably correct notion of each case, and judge for himself of the treatment adopted. Notwithstanding the many advantages of this model, and the facility of imitation, its utility and example have been completely lost on the surgical wards, where all would seem to be "confusion worse confounded." 'Tis true that the cases are here also reported and read, but so imperfectly and irregularly that the practice is comparatively useless to the pupil. The alterations in the treatment are never announced by the visiting surgeon in the shape of a prescription, being exclusively dictated in a vague manner to the clerk; the reports are never superintended or corrected by the surgeons, who seem not to take the slightest concern whether they are ill or well executed; and we need scarcely add, that this neglect is never compensated for to the student by a single observation from the surgeon during the visit. Now, much of the inconvenience and difficulty which the student experiences in the surgical wards, might be diminished by having the cases regularly reported, and read in an audible tone of voice; by the delivery of a few remarks daily by the surgeons, on such cases as require explanation, and by announcing the treatment in a proper manner. In short, we would propose to the Governors to have the business of the surgical on the same plan as in the clinical wards. There is no great labour in the observance of the duties just pointed out, nor is it easy to assign a cause for its neglect; it could not, however, originate in an ignorance of its injurious influence on the student, for the surgeons must be well aware of the embarrassment which he must feel in attempting to unravel the "Gordian knot" of disease under such disadvantageous circumstances.

It being impossible to account for the omission of these duties by supposing the surgeons ignorant of their importance, the source of the evil must be sought for elsewhere, and the nature of the clinical chair of surgery presents the most rational solution of the problem, taken in connexion with the manner in which the surgeons hold their appointments. The former, as every person is aware, is held by Mr. Russel, as professor of clinical surgery to the University; the surgeons, unlike those of other hospitals, derive no emoluments either directly from their attendance on the patients, from the fees paid by pupils for witnessing the practice of the establishment, or from the clinical lectures, the profits of which exclusively go to Mr. Russel, who, it may be here remarked, is never in charge of the patients. In these injudicious arrangements will be found sufficient cause for the state of the surgical wards, which has been just described. No arrangement, in fact, could be more contrary to reason, or better calculated to deprive the student of clinical assistance in his professional pursuits. In the first place, the absurdity of an individual professing to give lectures on cases of which he himself is not in charge, is quite manifest, for the chances are, that taking little or no interest in their management, many of the circumstances attending their progress, which require to be explained and impressed on the minds of his audience, will altogether escape his observation. There is, however, a still stronger objection to this practice, which almost amounts to a total prevention of an efficient discharge of the office of a clinical instructor; for, admitting that he pays the necessary attention to the nature and treatment of the patients, can it be expected that the lecturer will not prefer the reputation of his colleagues to the interest of the pupil? decline, in short, the ungracious task of censuring the surgeon by an unreserved explanation of his professional conduct, at the expense of the pupil? Both these objections to the custom are particularly applicable in the instance of Mr. Russel, being in fact derived from an attentive observation of the manner in which he performs the duty of clinical lecturer. It is quite notorious, in the wards of the Hospital, that his information respecting the cases is, for the most part, of a second-hand description, being derived from the clerks, the surgeons, or the journals; and that he pays little or no personal attention to the state of the patients, further than to take down their names and their complaint from the tickets at their heads, and stealing an occasional furtive glance at them during the visit through an array of students, to which the Macedonian phalanx was comparatively pregnable. Yet it is out of the slender stock of materials collected in this incompetent manner, that he professes to deliver lectures, which bear too strong evidence of the imperfection of their preparation, being superficial and desultory as they regard the cases which they are intended to elucidate, and a quarter of a century in arrear of the progress of the science which they are designed to teach. In the second place, the surgeons deriving no emolument from the pupils or the hospital, may consider themselves not obliged to give remarks at the bed side of the patients, or to observe clinical arrangements which would facilitate the pursuits of the pupils. They may also conceive, and very justly, that the delivery of remarks on the cases by them would interfere materially with the profits and duties of the clinical chair, if not entirely supersede the necessity of its existence. There cannot, therefore, be a second opinion on the impropriety of an arrangement which confides the didactic and practical duties of the officers of the hospital to different individuals; for between both parties the pupil is deprived of that instruction to which he is on all hands allowed to be entitled. The deficiencies of the teacher, arising out of an imperfect plan of conducting the business of the wards, and the pretexts assumed by the practitioners for not performing their duties, from personal or other motives, are no apologies for the neglect which the pupil, who pays for clinical assistance, experiences. To him all such explanations of the injustice done him are nugatory, and deserving of but one simple answer, and that is, if the occupation of the clinical chair, according to the present system, be detrimental to the interests of science and the acquisition of knowledge by the student, let it either be placed on some other footing, or altogether abolished as a nuisance. If the surgeons do not think it worth their while to fulfil all the obligations attached to their office for the mere advantage to be derived from a connexion with the Hospital, let others be found for that purpose.

We therefore call on the Governors to take into consideration the state of the surgical wards, as they have been described; the causes to which their neglected condition have been assigned; and to make the election of a surgeon to the present vacancy, in this part of the house, subordinate to a reformation of its abuses, by exacting from whomsoever they may appoint, a promise for the faithful discharge of his clinical duties. The request made involves no extraordinary demand, or sacrifice of time and labour, on the part of the person whom they shall appoint. It no more than requires of both to place the surgical on an equality of arrangement with the medical wards, and to raise surgery from that state of degradation and secondary importance, in which it has been too long held in the Royal Infirmary.

We insert the following correspondence, observing only for the present, as it is our intention to return to the subject, that although Mr. Cooper's explanation be satisfactory, as far as his intentions are concerned, his phraseology is, at least, extremely unfortunate, as we shall hereafter endeavour to convince him. We entertain a sincere respect for the talents and principles of Mr. Cooper, and never doubted that there was any substantial difference of opinion between him and ourselves, as to the character of those who hate and dread The Lancet, for the reasons which Mr. Cooper has himself stated.

Bedford Square, Dec. 31st, 1827.

Mr. Wakley deems it scarcely necessary to acquaint Mr. Cooper, that the letter which Mr. Cooper transmitted to him on Saturday last will be inserted in the next Number of The Lancet; but, before committing it to the press, he feels it incumbent on him, for various reasons, to request Mr. Cooper to state distinctly the construction that is to be put upon the following passage: "I am perfectly aware, Sir, that some individuals in the profession would disdain to become writers for *The Lancet*."

If this passage admitted of no other construction than that of an apparent attempt to cast an imputation on the character of The Lancet, Mr. Wakley would have considered this application unnecessary.

It may be right to add, that Mr. Wakley wishes Mr. Cooper not to regard this note as a private communication.

71, Great Russell Street,
Bloomsbury Square, Dec. 31, 1827.

As far as Mr. Cooper is individually concerned, he can have no hesitation is answering Mr. Wakley, that he considers it by no means unbecoming in any professional men to write for The Lancet, and, indeed, very necessary for them to do so, when they are attacked in it, and feel that they can defend themselves; he will go further than this, and even presume to express his decided approbation of all communications made to The Lancet, for the fair and upright purpose of procuring the abolition of numerous abuses yet existing in the profession: at the same time, Mr. Wakley can hardly fail to know, that his own opposition to many parts of the standing order of things, cannot fail to have raised against him a large body of medical men, who would not only disdain to write for The Lancet, but do actually decline to read it. The passage, which Mr. Wakley requires an explanation of, simply refers to this fact, and certainly does not implicate Mr. Cooper in any wish to detract from the merits of the publication, which, if it be sometimes erroneous and partial, is frequently right and equitable.

N.B. Mr. Wakley can make any use he may wish of this explanation.

MR. S. COOPER'S REPLY TO MR. LAWRENCE.

To the Editor of THE LANCET.

SIR,—Mr. Lawrence having completely failed to persuade the Medical and Chirurgical Society that any real necessity exists for the practice of very long incisions in phlegmonous erysipelas, is beginning now to vent his spleen on those members of the profession who happened, in the course of the discussion on this topic, to mention any considerations tending to bring the favourite proposal into discredit. *Tantæne animis cœlestibus iræ*? For his sake, I am almost ashamed to say, that he has suffered himself to publish various angry statements, which are not only irrelative to the question between us, but calculated to bring his surgical judgment into considerable doubt.—What has the operation of the trephine to do with the treatment of erysipelas? Yet, because I thought proper to acquaint the profession with certain reasons and facts against his plan of making extensive incisions in phlegmonous erysipelas, he has lost himself so far as to quit the defence of his own subject, and attack, (as I shall show,) without the least success, the suggestion of making a small perforation through the skull, in the track of the spinous artery of the dura mater, under particularly urgent circumstances. The spirit, with which this attack has been made, will be quite intelligible, when it is known, that although he possesses the last editions of my surgical works, he has found it most convenient to overlook them, and quote a copy printed many years ago. Unfortunately for Mr. Lawrence, who seems on this occasion not well versed in the history of surgery, the *safety*, and even the *necessity*, of this proceeding, on which he lavishes so much puerile sarcasm, and which he seems to wish to hold up to ridicule as a rash measure, compared with his own *mild custom of inflicting a gash, sometimes fourteen inches long, in erysipelatous parts*, have been fully exemplified in the practice of Baron Larrey:—

"J'ai encore appliqué le trépan sur le trajet de l'artère sphéno-épiné use à l'angle inférieur et antérieur du pariétal. L'artère fut rompue, mais j'en arrêtai presque aussitôt l'hemorragie par l'application d'un stylet de fer rougi au feu, et le blessé guérit, comme plusieurs autres de ce genre qui furent trépanés avec un égal succès."—(*See Mém. de Chirurgie Militaire.* T. 2. p. 138.)

Thus we see, that the division of the temporal muscle, and of the spinous artery of the dura mater, is not quite so sure of converting the patient into one of "the frightful band of bloody-headed spectres, pointing to the fatal holes in their temporal fossæ," as was once believed in the *dark ages* of surgery, and seems even yet to be believed by a tender-hearted modern surgeon. Who is this gentle, sentimental practitioner, that is turned into a whining kind of poet at the idea of making one or two perforations in the skull? No less a man than Mr. Lawrence; one of the surgeons of St. Bartholomew's Hospital; whose timidity and dreams of ghosts in one example, do not hinder him in another from making a *gash in the integuments of an erysipelatous limb, sometimes fourteen inches in length*, and *sometimes* by *instalments* (to use one of his own happy figurative expressions) *about a yard in length!* For, if one cut be made from the lower end of the radius to the shoulder, and another from the lower extremity of the ulna, nearly to the armpit, the *two instalments will be very little less than three feet!* I defy Mr. Lawrence to declare, in the face of the profession, that he has never had recourse to this deadly practice—a practice much more likely, than the application of a small trephine, to send the unhappy victims to the "*domus exilis Plutonia*," or to the "band of bloody-limbed, if not bloody-headed, spectres."

Mr. Lawrence, it appears, never makes extensive incisions in phlegmonous erysipelous of the scalp. Whether this determination arises from the head not presenting surface enough for the free use of the scalpel, or from the author's tender feeling towards the parietal bones, is difficult to say; one fact, however, is plain, that he has himself assigned no reasons why phlegmonous erysipelas of the head should be exempted from his favourite treatment.

The author of the celebrated paper on erysipelas, talks of paying me off in *my own coin*, an expression I frequently hear when I am passing through St. Giles's parish, yet it is beyond my powers of divination to find out, how this facetious critic should have known beforehand what sort of metal I should offer him, this being only my first *instalment*, remitted in a kind of coin to which his observations in the last number of THE LANCET clearly entitle him, with all the benefit of exchange.

Mr. Lawrence intimates his fear, that I shall have no competitor for the honour of having first advocated the safety of trephining the skull, over the track of the spinous artery of the dura mater. Is he quite sure, that Larrey may not put in a claim? Indeed, I apprehend, that the Baron may have put the plan in execution quite as early as my suggestion was made. Probably, therefore, I may be able to say, that I have a competitor, and one of very distinguished merit. In return, let me inquire, what surgeon of eminence has shown a disposition to claim from Mr. Lawrence the glory of having first recommended making in erysipelatous parts, incisions requiring a foot ruler, or even a yard measure, to ascertain their terrific length! Talk not to me, Mr. Lawrence, of perforations in the skull, but look to the cruel gashes you are yourself inflicting, in opposition to the better judgment of nearly the whole of the profession!

It is rather amusing, Mr. Editor, to find Mr. Lawrence betraying a squeamishness about my having transferred the discussion on erysipelas from the house of the Medical and Chirurgical Society to your pages. I am perfectly aware, Sir, that some individuals in the profession would disdain to become writers for THE LANCET; but it never occurred to me, that my inflamed, or rather erysipelatous opponent, would be likely to censure me for contributing a letter or two to its pages, especially when he knew, that the main remarks in his own paper, as well as his concluding speech, were sure of being inserted. In fact, my first letter was simply a notice of a few errors in the report given in THE LANCET, of what I said respecting erysipelas at the Society's house. My second letter was only a rejoinder to Mr. Lawrence's *printed* speech, as far as his observations related to myself. But this Gentlemen argues, that what I had to say upon the subject should have been delivered before he made his final address. No, Sir, it was this very address which called for my further explanation; and if I had chanced to have been at the meeting, (which was not the case,) and to have uttered a syllable on erysipelas after Mr. Lawrence had left the room, (which he did as soon as he had finished his own remarks,) I should then have been visited by the same kind of animadversions which he bestows on Mr. Travers.

Thus it is manifest, that Mr. Lawrence, who endeavours to represent me as setting a value on the opportunity of having the last word, is convicted of being himself the true and anxious lover of this petty advantage.

One of Mr. Lawrence's common tricks in medical disputes, is to try to cast ridicule on his opponent's language; a stale *ruse de guerre*, sometimes practised to divert the reader from the point. In the present instance, so headlong has been his zeal for this kind of hostility, that it has outstripped his judgment; and the wise query, "*is it not a new proposal to make a cut in a case of erysipelas*?" seems to be at once a reflection on his own critical knowledge, and a further proof of the inflamed, if not *erysipelatous* condition, of my poor opponent's brain. Permit me, Sir, merely to add, as an appendix to my comment on the foregoing query, that I should say, it is *a truly new and original proposal, to make a cut, fourteen inches long, in any case of erysipelas*, and one, of which neither Dr. Freind, (Dr. Freind's spectre, if Mr. Lawrence prefer the term,) nor the living Mr. Hutchison, would desire the honour.

The next passage which deserves notice, is that in which Mr. Lawrence informs the public, that my opposition to his proposal is not founded on "*copious personal experience.*" My case, indeed, is not very singular, for, I should be glad to know, who has had "*copious personal experience*" of this treatment, except Mr. Lawrence's unlucky patients in St. Bartholomew's Hospital, and elsewhere. With respect to surgeons, the practice has hitherto rather excited disgust in them, than imitation. Even my friend, the true father, or rather reviver, of the cutting practice, is confounded at the Lawrentian gashes, and is compelled, as it were, to disclaim his own overgrown grandchildren. Here it may be some consolation to the judicious surgeon to perceive, that the cutters are already beginning to cut and slay one another, which may ultimately be one of the best things that could happen for the poor patients themselves.

In reply to another part of Mr. Lawrence's facetious epistle, it is only necessary to state, that whenever I choose to write a paper on erysipelas, or any other professional subject, the cases in it will be quite as well attested as those prolix histories, which he has collected for the Medical and Chirurgical Society. I promise also this additional benefit to the public, that no case shall be concealed, merely because the issue of it may not have been successful. Had it not been for my interference in the present discussion, it is well known, that some unfortunate cases would not have been annexed to Mr. Lawrence's paper, and only a partial view of the effects of the cutting treatment, would have been laid before the public eye. Let Mr. Lawrence be careful to keep his promise on this point; for I can assure him, that some of his bad cases are within my knowledge, and, if not produced by himself, will yet see the light.

Mr. Lawrence boasts, more than once, of the ample number of witnesses of his bold and severe practice: were the matter one of less serious importance to the credit of English surgery, and to the poor sufferers themselves, I should cordially wish, that, amongst the crowd of spectators, he could have not only many witnesses, but many approvers, of the bloody plan; a distinction worthy of being well remembered.

Having now returned Mr. Lawrence some of *his own coin*, I shall leave him to dream of "bloody-headed spectres," or to ponder, whether Larrey's recoveries, after the perforation of the skull over the spinous artery of the dura mater, were *escapes* or *cures*. My own opinion, respecting the Lawrentian cases, is already formed.

I am, Sir,
Your obedient humble servant,
Samuel Cooper.

71, Great Russell Street,
Bloomsbury Square,
Dec. 29, 1827.

P.S.—In my hurry in the morning, I omitted to read Mr. Lawrence's postscript: "When phlegmonous erysipelas (he says) has been *allowed* to extend over a whole limb, *I think it of no consequence whether the cut measure five or three inches*." This requires no comment—the patient himself would give the right answer. From the above postscript, I learn that Mr. Lawrence employs incisions in erysipelas of the head, when the cellular substance of the eyelids is *seriously* affected, and when the *copious* (a favourite term) cellular tissue, *under* the aponeurosis of the occipito-frontalis, is inflamed. Three cases, which I have attended since the spring, namely, one with Dr. Smith of Staines, another in the Infirmary of the Fleet, and a third in that of the King's Bench Prison; all convince me that, unless for the purpose of discharging matter, free incisions are quite unnecessary, even though the cellular substance of the eyelids, and that under the occipito-frontalis, be inflamed. When purulent matter, however, has collected, the sooner an incision is made the better. Not having read the postscript, and recollecting Mr. Lawrence's reply to Dr. Bright at the Society, I inferred that the head was exempted from the scalpel, out of respect to the parietal bones, temporal muscle, or for want of room for an incision fourteen inches in length, or some other cause. This conclusion, however, appears to be an error. It ought also to have been explained above, in reply to a statement concerning Mr. Vincent, that he has never made punctures or incisions, unless for the discharge of matter, except in one or two examples. He was not likely, therefore, to have noticed any ill-effects from his mode of using the lancet or knife, or, at least, the bad consequences resulting from premature and very extensive incisions.

As my postscript and letter, unitedly, do not yet equal *in length*, and certainly not in importance, one of Mr. Lawrence's incisions by the *instalment calculation*, I venture to add a few more remarks. If this gentleman suppose that, in my last communication, I made any allusion to a contest having taken place for the glory of first proposing incisions a foot or two in extent, for the relief of phlegmonous erysipelas, he is certainly mistaken: my observation, that "*few* proposals were now ever made in surgery, *bad as they may be*, without some little contest taking place for the honour of having first suggested them," being, in fact, a reflection arising out of what has really passed, with regard to Mr. Hutchison's practice. At present, I know of no wish in any party to rob Mr. Lawrence of the credit of his invention: "*Res nova, non ullis cognita temporibus*." Nay, I can assure him, in the words of the same poet, "*Hic tibi perpetuo tempore vivet honor.*"

As for myself, I am less lucky; for, notwithstanding Mr. Lawrence's remarks might have raised in the bosom of a surgeon, less acquainted than I am with the history of surgery, some ambitious expectation of being the only claimant to the honour of suggesting the propriety of trephining occasionally in the track of the spinous artery of the dura mater, I knew very well, at the moment of reading that author's flattering observations, that the proposal had not really appeared so "extravagantly absurd" to all other surgeons, as to have annihilated every risk of my being deprived of the honour of the invention. Even Baron Larrey himself, I now perceive, must yield the palm to others. "I have applied the trepan (says Mr. Gooch) at the anterior and inferior angles of the parietal bones, without opening the arteria duræ matris." With respect to the Hippocratical fear, expressed by Mr. Lawrence, of *cutting the thick part of the temporal muscle*, it may be considered in the present state of surgery as absolute nonsense. The instances of successful trephining on the temple are so numerous, that I shall not insult the reader by quoting more than three works, in which he may satisfy himself on this particular point. (See Guillemeau, Œuvres de Chirurgie, 1712; Medical Museum, No. 55 and No. 60, and Gooch's Chirurgical Works, vol. i. p. 301.)

If Mr. Lawrence's alarm should proceed from the *double* perforation, or two applications of a small trephine, what must he think of the *escape* of Philip Count of Nassau, who had twenty-seven perforations made in different parts of his head, and afterwards recovered. Here, however, I grant, that the author of the paper on erysipelas, had he chanced to have lived in earlier days, and to have met the restored Count, would have had some good reason for supposing him a "spectre."

My remarks on the *molar tooth case of erysipelas*, and some other matter, must be postponed for the present.

EXCERPTA QUÆDAM EX EPISTOLES AMICORUM.

Notwithstanding, as our readers must have perceived, we have been repeatedly compelled, during the present season, to publish supplements, such is the superabundance of *materiel* flowing in from all sides, that we have become greatly in arrear with our Correspondents. We now purpose, in continuation of a former plan, to present a compendium—a digest of the mass of correspondence now lying before us. And first of the *cases*, which our friends have kindly transmitted us ·—

Mr. Threlfall, of Liverpool, has furnished us with two cases illustrative of the efficacy of the *secale cornutum* in accelerating parturition. In the first case, the patient, it seems, had previously borne four children, and her labours had never been of shorter duration than 48 hours, and in one case as long as 80 hours. Mr. Threlfall infused one drachm of the *ergot of rye* in a tea-cup full of boiling water, and administered half, after twenty minutes infusion. In the course of a quarter of an hour the pains became decidedly more effective, but, the remaining portion of the infusion was given, and shortly after this the child was born. In the second case detailed by Mr. Threlfall, the patient had been in labour 48 hours, when the ergot of rye was administered as in the former case, and labour was completed in the course of three quarters of an hour. In both of these cases, the os uteri, at the time of exhibiting the remedy, was fully dilated, and labour appears to have been delayed simply by want of power in the womb. In a third case, which Mr. Threlfall entitles " menorrhagia lochialis," where a constant discharge of blood had continued for twelve weeks after an abortion, an infusion of the ergot of rye (prepared by infusing half an ounce of the substance in half a pint of water) was given in the dose of two table spoonfuls, three times a-day. The discharge ceased after taking three doses of the medicine ; the patient however continued it for three days—it gave rise to no pain or uneasiness.

In such a case of hæmorrhage, purely passive, we can readily conceive that a medicine which, as it were, constringes and braces the uterus, may be of great efficacy ; of course such cases are to be discriminated from menorrhagia, attended with pain, and where the affection is evidently dependent upon inflammatory action. In such cases the ergot of rye would be inadmissible, and probably injurious. A fourth case is related by Mr. Threlfall, of profuse hæmorrhage, immediately succeeding upon a miscarriage, in which the ergot of rye was administered, and was productive of signal benefit.

Mr. H. Jervis, of Ashburton, has transmitted to us the particulars of a labour, rendered tedious from inertia of the uterus, in which the secale cornutum was given. The labour had been of four days duration, but it was safely concluded in less than three hours after the exhibition of the medicine.

Mr. Merry, of Kensington, has sent the following interesting case of death from uterine hæmorrhage :—

" Mrs. Goldsmith, æt. 29, the mother of six children, sent for Mr. Merry, in consequence of a violent flooding, which had been unaccompanied by pain, and had continued for two days. The usual means, on such occasions, were resorted to, including plugging the vagina, the administration of sulphuric acid, digitalis, &c. She was relieved ; the hæmorrhage, however, returned frequently for several days, when labour pains coming on, and she was delivered of a dead child. She was so much debilitated, that she sunk on the third day, a state of stupor having been induced. On dissection, the posterior part of the os uteri was found to be in a state of open carcinoma."

Mr. Rae relates a case of obstinate constipation, in which turpentine clysters were exhibited with success, after a variety of means had failed.

Mr. P. Campbell, of Edinburgh, has favoured us with the results of several years experience in the treatment of venereal disease, from which it appears, that although he employs mercury in all the forms of this disease, yet, at the same time, he admits that it is occasionally productive of ill effects in delicate constitutions; in such cases he administers the mercury conjoined with carbonate of iron.

To Mr. Curtis, of Camdentown, we are indebted for a series of interesting experiments and observations with the microscope, on the *structure of the lungs*. He injected wax of different colours into the bronchi and pulmonary arteries and veins, and by means of the microscope he was enabled to discover the exact proportion and relation which they bore to one another. He found that the cells of these viscera are placed in bunches, which do not communicate, and he had thus an opportunity of seeing very clearly the beautiful anastomosis of vessels described by Malpighi.

On the all-important subjects of *medical education* and *medical reform*, we have many communications lying before us. The letter signed *Johannes*, speaking of an " Agrarian partition of knowledge," is much too vague for insertion, although correct in the main.

A Correspondent, who signs himself X. Y. Z., complains of the five years apprenticeship exacted by the regulations of the Apothecaries Company, and suggests an improved system of education in toto. As long as the profession remains under the *ban* of its present rulers, no remedy can be effective; nothing short of a radical extinction of the present accursed system will avail, and that this will speedily occur, our correspondent may rest assured. The latter observations apply to the letter of Mr. Alison, of East Retford, who complains that medical men have not the power of legally enforcing payment for *attendance*, and cites the authority of an eminent counsel to that effect. All this, we repeat, is to be traced to the imbecility and supineness of our rulers, or rather, to the wretched and narrow-minded policy which dictated the framing of laws for their own immediate benefit, whilst the majority of the profession remain unprotected.

The Worshipful Company of Apothecaries seem to be universally despised; we have literally a pile of letters from various sources, complaining of their " worships." One signed W. P. speaks of the injustice resulting from the inquisitorial power possessed by this Drug Company, of visiting the shops of apothecaries and inspecting the drugs—destroying them too, if in the plenitude of their wisdom they should deem fit. It certainly is a most odious enactment—one that is in direct violation of every principle of justice, and utterly opposed to the boasted liberty of the subject. Prima facie, the thing is glaringly absurd, that venders of drugs should be made the judges of articles, furnished by *rival traders*.

With respect to the late regulations of the Company, on which subject we have many letters, we have already expressed our opinions. Well, indeed, might Napoleon exclaim, that the English were but a nation of shopkeepers, when we reflect, that the sacred trust of regulating and superintending medical education, is *here* placed in the hands of an ignorant herd of drug dealers.

An *Old Pupil* complains, that he has attended Mr. Brodie's " surgical " lectures for several seasons, and has never heard any observations on diseases of the eye, in consequence of which he has been compelled to enter to Mr. Guthrie.* He thinks that Mr. Brodie should diminish the amount of his fee, if he be incapable of giving information upon this important branch of surgery. If Mr. Brodie really were to act upon this advice, and charge only in proportion to the value of the information he communicates, we fear that there would be a "falling off" in his exchequer.

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* We fear the *old* proverb is applicable to the *Old Pupil*—" Incidit in Scyllam, qui vult vitare Charybdim."

An *Old Subscriber* is exceedingly anxious, that the detail of Mr. Hick's case of hydrophobia (much noised about town) should appear. We shall be happy to publish it, when it is forwarded to us properly authenticated.

A correspondent, who subscribes himself *Veritas,* offers some remarks upon an opinion of Dr. Morton, which appeared in the 208th Number of this Journal, in a review of communications contained in the Yellow Journal. Dr. Morton asserted, that children who suckled for an undue length of time, that is, for any period beyond nine or ten months, are by that means rendered liable to phrenitis. *Veritas* says, that his observations extend over a large extent of country on the Lincolnshire coast, and that it is a frequent practice in that district, to suckle children until they are *seven* or *eight* years of age, and yet no ill-effects result,—on the contrary, the progeny are remarkably healthy. Dr. Morton's observations were probably founded on the results of a very limited experience.

Dublinensis complains grievously of the master of the Lying-in Hospital—of his "dull prosing" and "badly reading the notes of others, *obscured* by his own comments."

Eleutheros is quite dolorous respecting the hardships to which naval surgeons are exposed—"Ye gentlemen of England, who live at home at ease," &c.

Mr. Nugent, of Dublin, speaks of the good effects resulting from the free application of leeches in cases of erysipelas.

An *Occasional Contributor* laments the want of means in our public charities, for giving to the sick the advantages of *locomotion* in the open air, so essentially beneficial in many diseases.

The *Per-centage* system alluded to by our correspondent, *F. P.*, from Cheltenham, as existing between a certain physician and druggist of that town, is truly disgraceful.

An *Inhabitant of Exeter* is, in some respects, in accordance with our sentiments We are by no means disposed to deny, that it is a very strong natural feeling which leads mankind to view with horror the violation of the tomb. But, under existing circumstances, we are compelled to resort to this measure for obtaining bodies; regulations might readily be adopted, by which all the schools would be amply supplied, without any such violation of the grave, and we trust that ere long, something of this kind will be effected.

Mr. W. J. Gordon, of Clifton, offers some remarks on Mr. Lyford's case of death from enlargement of the tongue, recorded in No. 214 of this Journal. Mr. Gordon is of opinion, that the mechanical impediment to respiration, produced by the enormous swelling of the tongue in this case, was the cause of a fatal termination—that, in fact, the patient was suffocated, and that it would have been a judicious practice to have made an opening in the windpipe.

The proposition is certainly well worthy of consideration in such cases, and this we say generally, without offering any opinion as to the propriety of adopting it in Mr. Lyford's case.

Another correspondent on this subject, asks "whether Mr. Lyford would not have been warranted in removing the tongue?" and refers us to the "Oriental Travels of Captain Jones," for an account of a Persian who could speak intelligibly, although his tongue had been entirely cut out.

ST. BARTHOLOMEW'S HOSPITAL.

OLD ADHERENT EPIPLOCELE, WITH SUDDEN DESCENT AND IMMEDIATE STRANGULATION OF THE SMALL INTESTINE.

Operation in eight Hours from the Strangulation.—Wound of the Intestine closed by a silk Ligature

John Shall, sixty years of age, was admitted into St. Bartholomew's Hospital, under the care of Mr. Lawrence, on the 2d of November, 1826. He has had a rupture for the last thirty years; but, although he has worn a truss, the reduction has been only partial, for he states that there has always been in the scrotum a swelling as large as an egg. This afternoon, at five o'clock, after using some exertion, a further protrusion took place, considerably increasing the previous swelling, particularly towards the groin. The part became very painful, and he immediately applied to a surgeon, who gave him aperient medicines, and endeavoured, ineffectually, to replace the parts. At eleven o'clock this evening he was brought to the Hospital, with all the symptoms of strangulated hernia strongly marked. The tumour, which commenced at the upper or internal orifice of the inguinal canal, and extended into the scrotum, was very hard and painful in the former situation, but less tense and sensible in other parts. Tenderness extended over the whole belly, and a tight feeling across the navel was complained of, but the abdomen was soft. The medicines had produced no evacuation; there was constant nausea and vomiting; his pulse was frequent and small. He was immediately put into a warm bath, thirty ounces of blood were drawn from the arm, and a tobacco clyster was injected. As these means were quite ineffectual, Mr. Lawrence determined to operate immediately, although the bowel had descended only eight hours before, concluding from the incompressible hardness of the swelling at the neck, from its great tenderness, and from the other symptoms, that the strangulation was of the completest kind, and that the operation afforded the only prospect of relief. It was performed at one o'clock on the morning of the third. When the external coverings of the hernia had been divided, the finger could be passed between the sac and the tendon of the external oblique as well as under the margin of the internal oblique and transversalis; hence it was obvious that the stricture was caused entirely by the neck of the sac, which could be felt encircling the protruded parts like a tight cord. When the peritoneal covering was opened not a drop of fluid was found in the hernia, the explanation of which must be derived apparently from the very recent occurrence of the descent. The contents of the swelling were a portion of small intestine in front, and a large mass of omentum behind. The intestine was six or eight inches long, and of a dark chocolate colour. A small silver director having been introduced with some difficulty into the upper part of the stricture; it was divided directly upwards with a probe-pointed curved bistoury. On withdrawing the intestine gently it was found at the seat of stricture to be deeply indented, and with a circular mark as if it had been tightly bound by a cord; its calibre was lessened at this part, and its coats appeared thinner; a considerable escape of inodorous turbid fluid took place when the gut was drawn down, and it was supposed at first to come from the abdomen; but on closer examination a small opening was discovered in the intestine above the strictured part. Mr. Lawrence supposed that the bowel had been wounded by the curved bistoury; he held the sides of the opening together with the dissecting forceps, while an assistant tied it firmly with a small silk, and then cut off the ends close to the knot. Although the omentum had been so long out of the abdomen and pressed on by a truss, it could be unfolded easily, and presented the natural structure; it adhered most firmly to the lower part of the sac. As the bulk of the protruded mass, and its long absence from the cavity, rendered its return both difficult and unadvisable, a large portion of it was cut off, and the divided vessels, which bled freely, were secured with six or eight ligatures. The portion which had been thus tied was left in the wound. The integuments were now brought together and united by means of three or four sutures, assisted by adhesive straps. Two hours after the operation, a small dose of the senna mixture was given, with directions that it should be repeated every hour until the bowels were evacuated.

Nov. 3. Has passed a favourable night; slight tenderness in the neighbourhood of the wound; pulse hard, 90; bowels open, tongue clean. Venesection to twelve ounces. Mist. ammon. acet. c. Magnes. sulph. ʒi, to be taken every six hours.

4. Has passed a comfortable night; is in no pain; tongue tolerably clean and moist; pulse less hard, 70; marked improvement of countenance; the blood taken yesterday is quite natural; the wound has united in the greater part of its length.

5. Has been rather restless during the night: pulse increased in frequency and hardness; tongue foul at the back; face flushed; more tenderness in the vicinity of the wound: complains of thirst; bowels free.

Venes. ad. ℥xiv. Continue the mixture, with an addition of twenty drops liq. ant. tart. to each dose.

6. Is much better; pulse quiet, 70; tongue clean; no pain in the abdomen; wound looking well; bowels rather confined. Haust. aper. omni hora donec alv. solut. erit. Blood not inflamed.

7. Has not passed so comfortable a night, being much troubled with flatulency; pulse quiet; secretions from the bowels dark and offensive. Hydrarg. c. cretâ, gr. i., pulv. rhei., gr. x.; to be taken immediately. Continue the mixture.

10. Is going on very favourably; no pain in the abdomen; tongue clean; bowels free; appetite returned. The wound is looking very well, and healthy granulations are formed on the omentum.

13. The ligatures were taken away; the wound is granulating; his general health is much improved.

16. He may be considered well, and only waits until the cicatrix shall be completed for the application of a truss.

Remarks.

In the preceding case, the patient had been subject to a rupture on the left side for thirty years, during which time it had never been entirely replaced within the abdomen. A large mass of omentum was found in the hernial sac, and intimately adherent to its lower part; but it is worthy of remark, that although it had been prolapsed for so many years, and a truss had constantly pressed on it, yet its structure was apparently sound. Its considerable bulk, and the length of time it had remained out of the abdomen, having lost, as the French writers aptly express it, "son dint de domicile," formed great objections to its being retained, as in all probability it would have acted as a foreign substance, and caused considerable irritation and inflammation. The omentum having been prolapsed for so long a time without disturbing the functions of the abdominal viscera, was, on the contrary, an additional circumstance in favour of its being retained in the wound, but on account of its bulk, it was deemed necessary to cut off a portion of it; the divided vessels were secured by silk ligatures, and the remaining portion of the omentum left in the hernial sac unreduced. No ill consequences followed this mode of treatment, the omentum granulated, and a fair cicatrix ensued. Mr. Hey observes, "when the portion of omentum, which is prolapsed, is in a sound state, of little bulk, and strongly adherent to the hernial sac; and when, from inquiries made of the patient, we learn that this small part has been prolapsed for many years, without disturbing the functions of the abdominal viscera, we may fairly conclude, that we shall not injure those functions by leaving such a portion in its prolapsed state. In such a case, I have suffered the omentum to remain, and have found no difficulty in healing the wound, nor any injury afterwards from the application of a well-adjusted truss."—Practical Observations, p. 172.

When the omentum is large, and has been for some time without the abdomen, Chopart and Dessault advise a large portion of it to be cut off, and to allow the remainder gradually to retire within the abdomen.—Traité des Malad. Chirurgical, t. ii. p. 268. Beyer states that when the omentum is very large, and has remained a long time out of the abdomen, if the whole of it be left in the wound, the cicatrix is formed slowly and with great difficulty, and when it is formed, the pressure of a truss cannot be borne. He therefore advises, that a portion of the omentum should be cut off, and the arteries separately tied; the integuments are brought over the remaining portion, (which is left in the hernial sac,) granulations are formed, and a solid cicatrix, which admits of the application of a truss, ensues. He then relates a case of entero-epiplocele, in which the patient had been subject to omental hernia for forty years, and in which he adopted this mode of treatment with perfect success.—Traité des Mal. Chirur. t. 8. p. 139.

It is well known, that persons who are affected with epiplocele, are constantly subject to the further protrusion of the abdominal contents. In the present case, the patient had borne without much inconvenience an omental rupture for thirty years. a sudden descent of a portion of intestine, then took place, and became strangulated. The operation was performed eight hours after the protrusion; the intestine was found of a dark chocolate colour, and indented at the seat of stricture. These circumstances forcibly point out the necessity of performing the operation without delay, when means of real efficacy have been unsuccessful.

The small opening in the gut was tied with a silk ligature, the ends cut off close to the knot, and the intestine replaced. Sir A. Cooper employed the same means in a similar case, and the patient recovered.—Lawrence on Ruptures, p. 309.

Mr. Travers, in his Inquiry, p. 134, states, from the result of experiment, that when a ligature has been placed on a portion of the intestinal coats, and the gut returned, the process of separation is precisely similar to that which takes place when no ligature is employed, the peritoneal surface of the intestine becomes adherent to the surrounding folds, the ligature separates into the canal, and passes off with its contents.

GUY'S HOSPITAL.

CASES OF SUFFOCATION FROM FOUL AIR.—POST MORTEM EXAMINATION OF THE BODIES.

A MAN and two boys were brought to the Hospital on the 15th of December, at about half past nine o'clock in the morning, under the following circumstances:—

At nine o'clock on the previous night, four persons (three boys and a man) belonging to a vessel lying in the river, retired to sleep in a small cabin; the dimensions of which were about six feet by four. There was a fire burning in the apartment, the material of which consisted of coals brought from Hull, and which are said to contain a large portion of sulphur. In order to render themselves more warm and comfortable, these persons removed the funnel leading from the stove, and closed the hatch-way, and in this manner went to bed. Between seven and eight o'clock on the following morning, the mate of the vessel going to call the crew, was surprised to find them all lying upon their faces, in a state of perfect insensibility. Medical assistance was speedily procured, the bodies were exposed to fresh air upon deck, and brandy was given: after a short time, one only exhibited symptoms of recovery; the remaining three were taken to the Hospital. When admitted, the man, William Garbett, and the younger of the two boys, John Jackson, were completely insensible: the other boy, John Homan, manifested signs of returning animation, and by the aid of manual friction to his chest, abdomen, and extremities (these parts being previously bathed with warm vinegar and water), he perfectly recovered from his insensibility in the course of the morning. He then complained of much pain in the head, with a sense of constriction, and was bled from the arm to the amount of ten ounces, with the most decided relief. He left the Hospital of his own accord on the following day.

The symptoms under which the man laboured were as follow: the whole surface of the body was cold—the countenance pallid, mingled with a degree of livor, especially observable in the lips—the breathing was very short and laborious, amounting even to stertor—the pulse was tremulously feeble and quick—the irides sluggish. A quantity of frothy mucus issued from the mouth, and there had been an involuntary evacuation both of fæces and urine.

Treatment.—Friction, conjoined with the application of warm vinegar and water, was sedulously used to different parts of the body for a considerable time. Bottles of warm water were applied to the feet, and some julep of ammonia, with about half an ounce of brandy, was administered with much difficulty. Some oxygen gas was procured, and the patient was made to inhale it, but however with scarcely any effect; he gradually sunk, and died about half past twelve at noon,—being nearly three hours from the time of his admission.

The condition of John Jackson, the boy, was nearly the same as that of the man, with this striking exception, however,—that his breathing was not stertorous. Friction was employed, as in the former case, to the abdomen, chest, and extremities; an ounce and half of brandy was thrown into the stomach by means of an elastic gum catheter passed into the œsophagus, through the nostril,—the jaws being so firmly closed, as to prevent its administration by the mouth. In addition, the boy was placed in a situation exposed to a current of fresh air, and after a short time he was made to respire oxygen gas, which produced violent action of the respiratory muscles. The face, which previously was pale, now became suffused; the action of the pupils was rendered more perfect, especially that of the left side, which before was almost permanently dilated. The boy, however, shortly relapsed into his former state; two ounces of brandy were given, and a further portion of oxygen gas inhaled; a sinapism was also applied to the pit of the stomach.

At twelve o'clock, Mr. Morgan saw the patient, and directed the jugular vein to be opened; this was done, and after about two ounces of blood were taken away, the pulse became increased in volume, and less quick. The left pupil, which had again become dilated, slightly contracted upon the admission of light, and a particular lateral motion was now observed in the ball of each eye—a constantly alternate succession of abduction and adduction. In consequence of some difficulty in obtaining blood from the jugular, a vein in the arm was opened, and four ounces of blood abstracted thence, the pulse in the mean while increasing in volume, and lessening in frequency. Two ounces of brandy were given, and a further portion of oxygen gas inhaled: about half an hour after these means had been employed, the whole surface of the body was bedewed with sweat, and the extremities were warm.

At two o'clock, the former bad symptoms had returned, and Mr. Morgan directed ten ounces of blood to be taken from the right temple, by means of cupping: this was readily effected by Hills, and it was supposed, with a slight amelioration of the symptoms. It did not appear to us, however, that there was any manifest result: the boy seemed unconscious of pain in the operation of cupping. Half an ounce of brandy, and some julep of ammonia, were given, and the oxygen gas at intervals, but without any benefit. An enema also was injected, which, however, was not retained, in consequence of the entire loss of power in the sphincter ani. The brandy and julep of ammonia were occasionally administered throughout the night, until two o'clock on the following morning, when he began to sink, but lingered till four o'clock, when he expired.

Examination of William Garbutt, the man, three hours after death.

The body generally was of a purplish hue —the lips livid.

Head.—The blood flowed freely on making a division of the scalp. There was an effusion of serum under the arachnoid tunic on the left side, and a smaller quantity on the right side. The vessels of the pia mater were not unusually turgid, but all the sinuses were loaded with blood, which flowed freely when they were cut into.

Thorax.—There was a great accumulation of blood in the lungs, and also on the right side of the heart. The blood was fluid, but coagulated as soon as it was exposed to the air. The pericardium contained about two drachms of serum.

Examination of John Jackson, the boy, thirty-three hours after death.

Head.—No unusual quantity of blood escaped in dissecting off the scalp, or removing the calvarium. The dura mater exhibited rather more blood than usual, and the veins of the pia mater were full; there was very slight serosity beneath the tunica arachnoides on the fore and upper part of the brain, and about two or three drachms of serum were found at the base of the brain; the pia mater and arachnoid tunic were very tough.

The hemispheres of the brain when sliced showed almost numberless bloody points, which were very dark, and the cineritious substance throughout was observed to be of much darker colour than natural; the dark bloody points were equally numerous in every part of the brain and cerebellum. There was a small spot of effused blood in the *cortical* substance on the outer side of the anterior lobe of the left hemisphere; it did not extend into the medullary substance, nor was it a coagulum with laceration of the brain, but a slight effusion into its substance as if from rupture of the minute vessels, so abundant in the cineritious structure. These small vessels were, throughout, beautifully injected with blood, and were very distinctly seen on peeling the arachnoid and pia mater from the brain. The lateral ventricles did not contain more than an ordinary quantity of serum; the veins of these parts, however, were apparently very large, being distended with black blood; this was especially observed in the veins of the corpora striata; the plexus choroides was not much loaded, but the venæ magnæ Galeni were distended; the sinuses were full of black blood, partly coagulated.

Thorax.—The lungs were healthy and collapsed, and not more full of blood than natural: the bronchial lining was of a dark red colour, arising from the injection of the minute veins, from which a beautifully distinct arborescent vascularity was produced. The small veins of the pleura were very distinct, and contained blood; the vasa vasorum of the pulmonary artery, of the aorta, and of the heart itself, were minutely injected with dark blood, giving to the whole a purplish or dark shade.

The heart was healthy in its structure, the right cavities were full of black blood, partly coagulated, with some soft fibrine; there was but a very small portion of blood on the left side of the heart.

Abdomen.—The small veins, as in the thorax, were unusually distinct: on the convex surface of the liver were observed irregular patches of a light brown colour, beneath the peritoneum, and extending into the liver to the extent of from a quarter to half an inch.

ADDITIONAL SUBSCRIPTION FOR MR. WILLIAM COOKE OF EXETER.

To the Editor of THE LANCET.

SIR,—Should any further subscriptions be received for Mr. Cooke, Surgeon, Exeter, the following have been collected by Sir L. Maclean, and are ready to be forwarded, as may be directed in the next Number of THE LANCET:—

Sir L. Maclean, M.D.	£1	1	0
Mr. Anderson, surgeon	1	0	0
Mr. Murray	1	0	0
Mr. Lewis	0	10	6
	3	11	6

THE LANCET.

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LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY,
DELIVERED AT GUY'S HOSPITAL BY
DR. JAMES BLUNDELL.

Lecture XIV.

On Turning.

In turning, as in most of the obstetric operations, it is a point of no small importance to determine aright on the proper moment of interference; for, like our repartees, our obstetric operations must be exactly timed, to produce their effect. Entering, therefore, on the consideration of this important operation, I may commence by making some observations upon those indications which enable the practitioner to discriminate here.

By some it is asserted, that turning ought never to be attempted, unless the os uteri be widely expanded, or, at all events, relaxed in such degree, that it may readily dilate under the pressure of the finger; nor is the rule to be despised. Generally, when the mouth of the womb is wide open, the hand may be introduced with safety; and this being the case, the sooner it is passed into the uterine cavity the better; while, on the other hand, if the os uteri be rigid, or if it be shut in great measure,—the disc not larger than that of a shilling, for example,—the introduction of the hand is unsafe.

By some practitioners, again, the indication for turning is taken from the laxity of the softer parts; and if the os externum, internum, and vagina, are all of them tense and unyielding, so that the entrance of the hand, perhaps of large size, would be attended with bruising or laceration, we are told to refrain; whilst we are advised to introduce the hand, even though the os uteri be undilated, provided the softer parts, thoroughly relaxed, yield under the pressure of the fingers; nor is this rule without its excellence: for when the parts are rigid, the hand certainly ought not to be introduced; but where they are thoroughly relaxed, with proper caution a gentle operator, with a hand of small size, may often securely enter the genital cavity; and we may be told, perhaps, not without show of reason, that the sooner he operates the better.

There are some practitioners who lay their principal weight on a third indication, I mean the condition of the membranes; and if they find that the membranes, unbroken and still full of water, are pushing through the mouth of the uterus, they refrain from turning, considering that so long as the water is retained, there is no risk lest the child become incarcerated in the uterus, so as to prevent the access of the hand.—But if, on examination, they perceive that the membranes are lacerated, and the liquor amnii away, then, without much regard to the laxity of the parts, or the expansion of the os uteri, they are anxious, as speedily as may be, to perform the operation. Now, of this rule, the latter part lies open to decided reprobation. Admitting, as those who have experience must do, that after the discharge of the water, an early extraction of the child is desirable; we must however admit too, that so long as the os uteri is shut, and the parts are unyielding, dreadful lacerations may result from rash attempts to introduce the hand. With respect to the former division of the rule, that I mean which declares that it is not necessary to introduce the hand so long as the membranes are untorn, and the liquor amnii is retained, to it I do not much object; because I agree, that whilst the liquor amnii is not discharged, there is no danger lest the fœtus becomes compressed and incarcerated, and there is no danger, therefore, lest the access of the hand should be debarred.

For myself, the rules which I observe in discriminating the proper moment for commencing the operation of turning, and which, useful in my own practice, I recommend to yours, are, not to enlarge needlessly, the following:—I lay it down as a principle, in which I think every practical man will agree, that provided the operation of turning may be performed without more than ordinary risk of bruising, tearing, or other injury, the sooner it is executed the better. If, then, I deem the operation safe and necessary, I do not needlessly delay it an hour—a quarter—I had almost added a minute, or a second; and this, more especially, as before hinted, if the membranes are broken, and the liquor amnii discharged; because, while we are delaying, the womb is generally becoming more active, and more contracted, the dangers and difficulties of the operation continually thickening in consequence. Indelibly, therefore, let this principle be impressed on your minds. Never turn without need, never rashly have recourse to the operation, without considering whether it be or be not safe; but if you are fully satisfied that turning will not be attended with more than ordinary danger, and if you are satisfied further, that there is no reasonable hope that the child may come away in any other manner, the sooner the operation is performed the better.

But you will ask me perhaps here, when are we to consider that the introduction of the hand is unattended with greater danger than ordinary; or, to give the question in a more practical manner, when are we to consider that the danger of turning is no greater than we are justified in imposing? Why, I consider that the hand may be introduced with such degree of safety, as may justify the operation, provided you find the os uteri to be as broad as a dollar; and provided you find too, on pressing in different directions, that the softer parts are thoroughly softened, the patient, perhaps, being the mother of many children, or relaxed by copious floodings. The rule then may be given in few words, as follows:—In ordinary cases, if the mouth of the womb be as broad as a crown piece, and if the softer parts, be relaxed thoroughly, the introduction of the hand is not exposed to greater risk than usual; there seems to be no circumstance preclusive of the operation, and the sooner we commence the better.

The operation resolved on, unless the rectum be loaded I should dissuade from the administration of injections in the way that some have recommended. The intestine, indeed, they clear, but they also stimulate the uterus, and bring on the pains which every one who has had experience of these cases will be solicitous to avoid.

Before turning is attempted, the bladder should be evacuated. This, in general, it may be, by the natural efforts. If, however, the urinary organs be in such a condition that the patient cannot discharge the urine by the natural efforts, provided but little water be collected, the catheter is unnecessary; but if, on making investigation above the symphysis, you find that the accumulation is large, the catheter may be introduced. In different postures the patient may be placed, when you are going to perform the operation of turning; but though you need not always turn under the same position, for ordinary purposes you will find it most convenient to put the woman in the usual obstetric posture, on the left side, close upon the edge of the bed-frame, (if difficulty be anticipated,) with the shoulders forward, the loins posteriorly, the knees upon the bosom, and the abdomen towards the bed—in a word, in the position of this image. Nurses, as formerly observed, are apt to place the patient with the shoulders posteriorly, and the loins in front, as I now place the image,—a position exceedingly incommodious for the operation under consideration.

As to your own posture, you will find it convenient sometimes to kneel at the bed side, a pillow being provided, and sometimes to sit in a very low chair, your position varying as the operation proceeds. Respecting the position of the uterus and the fœtus, and especially of the feet of the child, you ought to have clear ideas before you commence the operation. In a preceding Lecture I observed to you what I now repeat, that the uterus, in the end of pregnancy, lies entirely above the brim of the pelvis, occupying about two thirds of the abdominal cavity; the abdominal coverings and loaded bladder are before it—the intestines and other viscera are above and behind it—and the womb leaning forward, its axis lies parallel with a line stretching from the coccyx to the navel; the fundus pushing forth beyond the ensiform cartilage, and the mouth, seated at the brim, is inclining toward the lower extremity of the sacrum. Nor must we forget the ordinary position of the fœtus, placed commonly in these cases with the shoulder over the os uteri, the head on the cervix, and the feet in the fundus, with the loins and lower limbs carried along with the fundus uteri towards the front of the abdomen, the thorax, head, and arms, lying behind. Do not neglect these hints. To acquire ideas as correct and distinct as may be respecting the position, both of the fœtus and the uterus, is of the greatest importance in this operation.

Before we commence the operation of turning, we ought to ascertain with nicety the position of the feet,—whether they are in the front, or the back of the uterus, at the left side or the right; points best determined by examining the presenting part. And as the arm case is the most common, and as it is unfortunately the most difficult of management, on this case I will demonstrate the method to be observed. Let us suppose, then, a brachial presentation, the arm lying forth, as in these models, beyond the external parts; we are by examination to ascertain the position of the feet, in order that we may reach them and turn. For this purpose it should be observed, that when the arm is extended, and the hand is placed intermediately between supination and pronation, the palm of the hand takes the direction of the abdomen, and the back of the hand the direction of the loins, the thumb lies towards the head, and the little finger towards the feet. Well, now, applying these principles to the case before us, the palm of the hand lying to the sacrum, I know the abdomen of the child, with its legs, is on the back of the uterus; the thumb lying to the right, I know that the head is to the right; the little finger placed to the left, I know the feet are to the left also; and thus, without inspection, merely by paying a little ordinary attention to the presentation, I am enabled to ascertain that the feet are lying on the back of the uterus, and towards the left side, which, as you perceive on raising this handkerchief, is precisely their position. To repeat then: before you commence the operation of turning, consider what is the bearing of the uterus itself; consider what is the position of the child; and, more especially, consider what is the position of the feet. This accomplished, you need no preceptor to admonish you which hand is to be preferred. Knowing the situation of the child, and the feet, together with your own method of operating, you will discover, on a moment's reflection, whether the right or left hand be the more commodious in any individual case under care. If you think you will be able to reach the feet more readily with the left hand, by all means let this be employed; if otherwise, employ the right. Without intending to prescribe any fixed rule, I may remark, that the woman lying on her left side, the usual position, you will generally find the left hand more subservient, if the feet are in the back of the uterus, while the right may prove commodious, provided they lie in front. Some practitioners always turn with the left hand, and some always with the right; but from the reflections just made, it is obvious that you ought to acquire, if possible, the dexterous use of both.

But to proceed: After a good deal of observation on the operation of turning, I have been induced to divide the turning cases into those in which it is easy, those in which it is difficult, and those few cases in which it is impracticable, either for a time, or permanently, so that you are obliged to resign it altogether.

Cases of Easy Turning.—If you adhere to the wholesome principle formerly announced, and commence the operation of turning as early as the safety of the patient may admit, you will, I believe, in general, find it of easy execution; the woman is as yet unexhausted, the softer parts are relaxed, and the vagina and womb are free from inflammation and tenderness; the cavity of the uterus, capacious and uncontracted, admitting the ready approach of the hand of the operator to the feet of the child, and allowing of an easy evolution afterwards.

In operating in these easy cases, it should be your first office to make choice of the hand with which you mean to act; and knowing, as before advised, the situation of the feet, you speedily determine which of the hands may most readily reach them, and may prepare it accordingly.

In the Gallery of the Louvre, I once saw a painting of the Feast of Belshazzar—*magnifique*, of course—in which the Divine hand was graced with a ring and ruffle. I have heard of a French accoucheur, of finished exterior, who lost in the uterus a very valuable jewel; to our ingenious and lively neighbours it is better to leave "*ces gentillesses*," and should you make use of ornaments, it may be as well to remember that there are occasions when they are better away. The hand then chosen, take off the coat, remove the shirt sleeve, abstract your rings, and with cold cream or lard, best fitted for the purpose, lubricate abundantly the arm, with the back of the hand and knuckles, avoiding the palm and inner surface of the fingers, as this is the part with which you lay hold of the child. Having thus prepared the hand and arm, you throw the fingers into the conical form here demonstrated, and pass them through the os externum upon the promontory of the sacrum, being very careful not to lacerate the perinæum. The passage of the knuckles occasions the principal pain and danger. The risk and distress are greater if the woman have not borne children before. The transition may be facilitated by using the fingers as dilators. With mingled firmness and gentleness the operation should proceed. When the knuckles have cleared the externum, you find the whole hand in the cavity of the vagina, and it becomes your next office to enter the uterine cavity; for which purpose, again giving to the fingers the conoidal form, slowly entering the uterine cavity, you pass the mouth of the womb, always in great measure dilated before the operation can be properly begun. If the membranes have been broken, and the liquor amnii have been discharged, the hand readily enters the cavity of the ovum; but operating early, you will sometimes find that the membranes are not yet ruptured, and to enter them laceration becomes necessary. Whatever is worth doing at all, is worth doing well. Let this part of the operation, though simple, be carefully executed. When the membranes become tense, under the action of the uterus you have the most favourable opportunity for breaking open the cyst. Be careful to put the hand into the cavity of the ovum, as the interposition of the hand between the womb and the external surface of the membranes might give rise to flooding, by detaching the placenta; throughout the whole of this part of the operation, bear in mind the awful specimens of vaginal and uterine laceration now on the table before you, and beware.

Suppose now that all these measures have been carefully executed; that the cyst has been opened, that the hand has been insinuated; that the os uteri has sustained neither contusion nor laceration; your hand being passed thus far above the brim of the pelvis, and lying in the uterus, you may promptly, tenderly, press forward towards the fundus, so as to bring the brawn of the arm into the vaginal cavity, preventing by this plug the escape of the waters, if they are not already discharged. Your hand lies perhaps amidst the waters; or if the womb be lax and capacious, the hand may be moved about with facility, though the waters have been discharged. Knowing the region of the feet, advance, during the absence of pain, directly to this part of the uterus, usually the fundus, slowly or rapidly as the parts may bear, very careful not to lacerate [the womb or vagina,—remembering that at this moment a thrust of the hand is contusion, laceration, destruction, death. The third stage of the operation completed in this manner, and the hand approximating to the feet, in general the arm lies in a line stretching from the umbilicus to the coccyx, the bend of the elbow approaching the key of the pubic arch, the hand lodging in the top of the uterus, and the brawn of the arm taking its place in the cervix uteri and vagina. At this part of the operation, pause for a little,—repose yourselves, and reflect. Preparation thus being made, the fourth stage of the operation commences with the seizure of the feet, you being careful to ascertain clearly that they are the feet, and not the hands; and further, that they are both the feet, and not a foot and hand together, mistaken for them. Having made sure of the feet, grasp them as you please; but you will find it not inconvenient to place two fingers, the first and second, on the back of the legs, so that the fore finger may rest above the projection of the heel, the thumb and two remaining fingers lying on the legs in front. In this way you may secure a pretty firm hold of the legs; the hand, as you perceive, not occupying much space. Having then in this, or any other mode more commodious, acquired a firm hold, slowly, smoothly, and without jerking, you draw, throwing the abdomen of the child upon the back of the uterus; so that at the end of the operation, the legs hanging forth, you have converted a transverse presentation into a presentation of the legs, the front of the fœtus lying upon the sacrum, so that the arms and head may be easily got away.

The legs brought down in this manner, the head and shoulders must be extricated, a part of the operation which may require delays, as the intromission of the hand, of small compass, may have been accomplished with facility and safety, although the parts are too rigid to give passage to the head and shoulders, more especially if bulky. Before the head and shoulders are abstracted, therefore, examine the softer passages, and if they are lax enough to transmit the child without injury to either, let this part of the labour be completed immediately; but if there is a rigidity of the vagina, or a partial closure of the os uteri, so that immediate delivery becomes obnoxious to contusion, fractures, or lacerations; you must wait. While the chord pulsates, the fœtus is in no danger; if the beat of the chord languish, danger may be apprehended Remember, however, that the safety of the mother is paramount, — come what may, her person is to be preserved unhurt; this is a pre-eminent maxim of British midwifery; and if this require that the delivery be procrastinated, however fatally to the fœtus, the birth must be suspended. In our own families, the life of the child would never be put into competition with that of the mother; nor can we err here in adheriug to the maxim, equally admired by the saint and the philosopher, to be found alike in the writings of Confucius, and in records more venerable — Whatever ye would that men should do unto you; that do ye unto them.

The grand error to which you are obnoxious, the error against which you have been cautioned so often on other occasions, is, the use of too much force,—arte, non vi; ferocious, atrocious violence, is to be exploded from midwifery. Contusions, inflammations, lacerations, fractures, decapitations,—these are the tremendous consequences resulting from this error, too well demonstrated by the preparations on the table before you, consequences at once fatal to the mother and the child. Will you offer up their blood to Moloch? that goary Moloch, obstetric violence? Laceration of the womb, laceration of the vagina, extensive laceration of the perinæum,—one or other of these with certainty occurring if you operate rudely, and now and then perhaps when turning is performed with nicest care.

Those make a mock of turning who have never seen its dangers; it is at best a fearful operation.

Of more difficult Turning.—Though always more or less dangerous, the operation of turning may often be accomplished easily enough, provided it be performed sufficiently early, and circumstances conduce. Hence you will sometimes hear your obstetric acquaintance triumphantly exclaiming, "for my part, I always turn without any difficulty,"—a declaration, by the way, which evinces not their superior skill but their small experience in the nicer and more dangerous parts of practice. In consultation especially, we sometimes meet with cases of turning,—embarrassed at once with difficulties and dangers; the body of the uterus is constricted about the fœtus; the mouth and cervix are more or less firmly contracted around the presenting part; the passages are swelled, inflamed, and dreadfully irritable; the patient, wearied with exertion, and desperate through suffering, cannot be persuaded to lie at rest upon the bed; and thus, sometimes, though rarely, a case is created which might try the nerves and the muscles of even those minions of obstetric fortune, to whose superlative skill all difficulties give way.

Called to cases of this kind in the middle of the night, it should be your first care to rouse your drowsy faculties, and to consider with your associate the difficulties which you may have to encounter. A French author somewhere asserts, that there has been more wit in Europe since coffee was introduced. In cases of difficulty and drowsiness, a basin of strong tea is not without its utility,—if green and hot, it is a sort of tenth muse, and has, I am persuaded, in modern times, excited thoughts, less sparkling perhaps, but not less judicious, than the inspirations of those much-vaunted draughts of Helicon, or of the still more poetic cup of coffee and champaigne, which

> "Chatouillant les fibres des cerveaux
> Y portent un feu qui s'exhale—en bons mots."

In cases of turning, dangerous and difficult, you will sometimes find the patient in a state of excitement, and at others collapsed from extensive laceration or contusion, not always recollected by your predecessor when giving an account of the previous occurrences. Before, therefore, you turn, examine carefully the general condition of the patient; look at the countenance; investigate the pulse; consider the pains;—if the pains are ceasing, if the pulse is 140, if death is in the face,—a strong expression, which you may hereafter understand,—from one cause or another, extensive and fatal injury has been inflicted, and your prognosis must be given accordingly; but if the countenance though flushed is animated; if the pulse firm and round remains about 120 in the minute; if the efforts of the uterus are repeated and violent;—the energies are still unbroken, and much may yet be accomplished.

Further, before you proceed to the operation of turning in cases of this kind, you should prepare the passages for the introduction of the hand by relieving them from the inflammation and irritability. Sixteen or twenty ounces of blood, on an average, you may take away in this view. From 80 to 100 drops of the tincture of opium—for we give the larger doses in those cases—may also be administered with advantage; and with the decoction of poppies or warm water, (the decoction of poppies being preferable, however,) the softer parts may be soothed; after which you often find that the parts sustain the passage of the hand, though previously they could not bear a touch. Before you engage in manual measures, take means for the relaxation of the womb, its mouth and body; for from the constriction of these, the principal difficulty is to be expected. For relaxing the genitals, the tobacco clyster would, I have no doubt, be found of all remedies the most effectual; and much it is to be regretted, that its effects are so dangerous. Of all relaxants the most powerful—it is of all relaxants the most perilous; and although I can readily conceive certain anomalous cases in which its use might be justifiable, yet in the present condition of my information, I have not courage to recommend it to your employment, even in those higher difficulties now under our consideration. In puerperal hospitals the warm bath might, I conceive, be used with advantage, the patient being kept there till deliquium approaches. From the excitement of the bath, a flooding might by some perhaps be apprehended; but a previous venesection would diminish the risk of this; or, should an eruption occur, it would prove rather beneficial than otherwise. A very effectual relaxant is the abstraction of blood from the arm, say to the amount of 20 or 30 ounces; or rather, in such quantity as may give rise to deliquium. That the relaxant has great power, is sufficiently shown by what takes place in placenta cases; for in those cases where three or four pints of blood have been lost, the hand may in general be carried up with perfect ease, the uterus, passive and unresisting, giving way before our pressure. In a dozen cases or more I have had occasion to operate myself, and never do I recollect to have met with any considerable resistance to the entrance of the uterus. It is much to be regretted that large bleeding, or ad deliquium, is a very rough remedy, nor perhaps wholly without its dangers; one, therefore, which becomes justifiable only when the emergency is pressing.

Though the womb is an involuntary muscle, there seems to be no doubt that it may at length relax in consequence of becoming *weary*, so that, in the morning of the day, you are unable to introduce the hand; while, in the evening, perhaps, it enters the uterine cavity with facility. Although, therefore, the first effect of delay is an increase of the difficulties of the operation, the ultimate consequence may be a facilitation of it, so that it really seems better either not to procrastinate at all before you turn, or else to procrastinate as long as may be. The risk of spontaneous uterine disruption, and the protracted pains and anxieties which are the results of this dely, constitute the principal objections to it as a general practice. Nevertheless, in those cases in which bleeding, bathing, and other remedies, have been tried without effect, this measure may be thought of; a measure which may recommend itself to the most inert accoucheur, as it simply requires him to sit still.

To relax the womb, you may give opium by injection or otherwise, in large doses, 80 or 100 drops of the tincture, for example, or a proportionate quantity of solid opium, the remedy deserving a fair trial. Of the atropa belladonna, I have had little experience. It is asserted that the extract, if rubbed on the upper part of the vagina, will relax the os uteri; but, till further observation, I cannot pledge myself to the truth of this opinion. A scruple I myself once applied to the mouth of the uterus in a case of dysmenorrhœa, no ill consequences ensuing. Beware of an overdose.

Such, then, are different expedients to which you may have recourse, in order to relax the uterus before you attempt the introduction of the hand,—the belladonna; the larger doses of opium; the weariness of the uterus; the abstraction of large quantities of blood from the arm; the warm bath; and, most effectual of all, though most unsafe, the tobacco clyster.

Not to bewilder you, however, with a multiplicity of remedies, it may be well to remark, that of these remedies there are two on which I rely, in my own practice, and these two are the abstraction of blood, and the administration of opium. Twenty or thirty ounces of blood I usually abstract from the arm, giving, too, 80 or 100 drops of the tincture of opium; and if that quantity do not produce the desired effect, I repeat smaller doses of twenty or thirty drops, administering these until some indication of its effect become apparent,—intoxication, drowsiness, or a diminution of the uterine efforts and pains.

The woman then prepared in this manner, you proceed to the manual part of the operation, of great nicety, requiring a mixture of tenderness, firmness, and no small share of ambidexterity. The passage of the os uteri will be the first difficulty with which you have to contend; the hand being opposed by by the contraction of the womb, about the presentation, and it may be that you operate for fifteen or twenty minutes before you make a safe transition into the uterine cavity: for this be prepared. Beware of impatience and violence. Beware of lacerations. Have mercy upon the patient; again, I say, have mercy upon her. Remember, that a thrust of the hand here is as fatal as a thrust of the bayonet. Wounds more dreadful were not inflicted on the bloody field of Waterloo. Wombs and women are not to be taken by assault. When the hand is carried through the os uteri, you may find it necessary to repress a little the presenting part,—to push the fœtus back hastily and extensively is fatal; you must not even think of it; you will tear the vagina, lacerate the uterus—do both perhaps—how easily too—but can you afterwards repair them? To repress the presentation, however, a little, an inch, for example, so as to allow the fingers to pass, may be allowable, because necesssary. Even this repression, however, is always more or less dangerous, and it is best to attempt it when there is no pain. Proceed as I now show you. Your hand in the cavity of the uterus, you have not yet obtained your victory; the great difficulty still remains; I mean the access of the hand to the feet of the child, during which you have to contend with the following obstructions. When the womb is contracted about the body of the fœtus—your hand is much incommoded; it becomes numb, cramped, partially paralytic, and unfit for service; and under the pain which you feel, perhaps drops of perspiration make their appearance on your forehead. Throughout the previous parts of the labour, you have borne the sufferings of the patient with stoical fortitude, and truly christian-like resignation, but you now begin to sympathise—a feeling heart is certainly an honour to its possessor. Well, in this condition, you feel for that part of the uterus which is the most roomy, and there depositing your hand, you repose for a few minutes, careful not to stir the fingers lest contractions of the uterus, and compressions, should again be produced. Be still.

Further. When performing the operation of turning, you have to contend with a second difficulty,—I mean those occasiona contractions of the womb which are denominated the pains; contractions which are exceedingly apt to be produced, when you attempt to make progress towards the feet. Now if the contractions are slight, and rare, you need not interfere. In such cases, it is sufficient to lie quiet during the pains, endeavouring to steal forward afterwards, when the uterus relaxes. Should the womb, however, be angry, and the pains more frequent and violent, more opium must be administered; twenty or thirty drops every quarter of an hour, until its further operation become obvious, or till the uterine irritation be subdued.

In these turning cases, you will sometimes meet with a third obstruction, consisting in a *circular contraction* of the middle of the womb, dividing it, as it were, into an upper and inferior chamber, part of the fœtus lying in both. In passing this sphincter, if you proceed with gentleness, resolutely, yet cautiously, taking time sufficient to judge from two or three cases of this kind which have fallen under my own notice, you will generally find that the hand may, on the whole, be passed with tolerable facility and safety; but beware of force.

Thus then, yielding or encountering these difficulties which oppose your progress, stealing forward when the womb relaxes, reposing when it acts; the hand extending flat upon the fœtus; the knuckles never elevated needlessly as you bear forward, lest the uterus be torn by them; at length you reach its fundus. Now, at the time when the hand is in the fundus uteri, the brawn of the arm lies in the pelvis, the hand bearing forward beyond the ensiform cartilage, and the arm below resting upon the sacrum and perinæum, which you must be careful not to lacerate. If your person be slender, little difficulty will be experienced here; but should you carry much muscle, obstruction may arise, the pelvis being too small to give ready admission to the arm—I mean the bulkier part of it, nor can this difficulty be effectually removed; though your operations may be facilitated, and that too materially, by the copious use of cold cream or lard; or you may send for another accoucheur, who enjoys the necessary physical aptitudes. Women, in choosing their practitioner, should give a preference to those who are of effeminate make; and I feel the more satisfaction in giving this advice, injurious to none, because I know it won't be taken.

Such, then, are the principal difficulties which embarrass the operations of turning: the bulk of the arm; the circular constriction of the uterus; the occasional spasms; the general and permanent contraction of the womb; the constriction of the os uteri. The rigidity of the passages I forbear to mention, for if you operate at the proper moment, it will rarely obstruct you. Through all these difficulties, perseveringly—resolutely—patiently—composedly, without violence, and successfully at last, you struggle at length to the child's legs, and happy you are to feel them. Do not confound the arms with the feet,—an error to which you are obnoxious, when the nicer sensibilities of the hand have been impaired by compression. If both legs are seized, the child will turn more easily. If you can grasp one leg only, let this be brought down; often you may turn by one leg; but should it be necessary to draw down the other, the access to the second will be facilitated by the descent of the first. Should the seizure of the leg be impracticable, I would recommend you to lay hold of the knees, gradually working your fingers towards the feet, in the way here demonstrated. If you are tantalized and baulked, by coming within touch but not within grasp of the feet, so that you can feel but not seize them, you may sometimes overcome this difficulty by changing the position of the patient. The woman turning round slowly, while your hand is in the uterus, by this movement, without further trouble, the feet may be brought among your fingers; so that under this simple manœuvre, although you cannot carry the hand to the feet, you may sometimes carry the feet to the hand, and this without much difficulty. If, however, by none of these measures the feet or knees can be reached and seized, withdrawing the hand, you may pause till you have recovered your strength a little, after which the attempt may be repeated with the same hand, or you may send for another accoucheur. By one or other of these expedients, in most instances you succeed in obtaining firm hold of the fœtal legs; and this accomplished, you draw them slowly into the pelvis, ultimately bringing them forth through the outlet, so as to convert the transverse presentation into the crural. In drawing down the fœtus, let the abdomen be thrown upon the back of the uterus and pelvis, as, under this situation, the shoulders and head will be most easily extricated. It is not by sudden or violent efforts, but by a steady gentle bearing, that the child should be brought down. When the transverse presentations show a disposition to enter the pelvis together with the legs, as shown, the fœtus descending doubled, you may secure the legs by the instrument now exhibited, or by tying a ribbon round one or both ancles, drawn forth for this purpose; and then, pressing the presentation upward with one hand, while you bear forth the legs with the other, you cause the fœtus, as here demonstrated, to revolve upon an imaginary axis, the original presentation passing of consequence from the mouth of the uterus, and the loins and legs descending in its place. From the demonstration here given, you may perceive that in this operation the child is not thrown back from the pelvis, so as to extend and endanger the laceration of the womb or vagina; though it revolves upon its axis, its elevation remains unchanged, or, if changed at all, it descends.

When the pelvis is narrow at the brim, space is sometimes wanting there, to give passage to the hand when grasping the feet; the mass formed by the two in conjunction being too bulky. This difficulty may be surmounted by withdrawing the hand, after having seized the feet with the crural forceps here exhibited; or, if you secure the feet, by placing two fingers, the first and second, upon the leg above the heel, the two remaining fingers and thumb being placed in front over the instep, the bulk of the hand may sometimes be reduced to so small a compass in this manner, that the transit of the brim may be accomplished.

One other difficulty I have met with when drawing down the legs, arising from the breech, as here shown, becoming seated over the front of the pelvis, above the symphysis pubis. In these cases, let the nurse, while you are drawing, press steadily and firmly between the brim of the pelvis and the navel, urging the fœtus towards the promontory of the sacrum; and the breech becoming dislodged, the legs will afterwards descend with facility, the delivery being completed afterwards as in ordinary crural presentations.

Composure, perseverance, gentleness, patience, experience, great manual dexterity, and a thorough knowledge of the bearings of the fœtus, womb, and pelvis, are requisite in the accoucher who manages these cases. Lacerations constitute the principal danger; arte, non vi;—of more sudden violence beware: and take care, too, that you are not enticed by degrees to the use of too much force, wheedled onward by the delusive and dangerous, and continually successive expectations, that one ounce more pressure will bear down the obstruction. Ah! this one ounce—only one ounce more —it is this, I fear, which often kills the patient!

Impracticable turning.—But what is to be done in those cases, of rare occurrence, in which the operation of turning cannot be effectuated? Why, if dangerous symptoms demand immediate delivery, embryotomy is, I imagine, the only remaining resource; but so long as no dangerous symptoms press, we may wait, with a reasonable hope that the fœtus will be expelled by spontaneous evolution. Two cases of impracticable turning I have seen, both terminating in this manner.

If spontaneous evolution be obviously begun, turning should not be attempted; if the fœtus is under six months old, the natural efforts may be trusted, and will frequently expel it; if, under your attempts to turn, you feel any fibres giving way, whether in the womb or vagina, withdraw the hand immediately. The body of the womb sometimes yields, but more frequently the back or front of the vagina near the bladder, or promontory of the sacrum. This preparation shows you, that the vagina is not much thicker than brown paper. It is much to be regretted, that we are in possession of no plain indication, enabling us to decide with precision, when our attempts to turn ought to be relinquished as dangerous. The yielding of fibres; vaginal or uterine, is a good monitory sign; but it is to be wished that we had some less dangerous indication.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXII.

On the Combinations of Sulphur with Hydrogen, Chlorine, and Iodine; and on Phosphorus.

The combination of *sulphur* with *hydrogen* comes next to be considered, a compound which was first discovered by Scheele about fifty years ago; it may be obtained by presenting sulphur to hydrogen in its nascent state, as by acting upon sulphuret of iron with dilute sulphuric acid.

A hundred cubic inches of *sulphuretted hydrogen gas*, the name given to this compound, weigh 36 grains; its specific gravity to air is as 1.1934 to 1.000, and to hydrogen as 17. to 1. The gas burns when a lighted taper is introduced into it, but the taper is extinguished, sulphur is deposited, and water and sulphurous acid are formed. It has an insufferable stench, producing nausea and vomiting, and is destructive to animal life. Its odour resembles that of rotten eggs. Its solution in water is not uncommon in mineral springs, as in the water of Harrowgate, Aix-la-Chapelle, Bareges, and other places. The solution of sulphuretted hydrogen in water is colourless, transparent, and smells strongly of the gas. You may easily detect it in any mineral water, not only by its smell, but also by introducing into the water a small quantity of lead, which immediately becomes blackened. By this circumstance we are also enabled to detect lead in water, even in very minute quantities; and you will almost always find traces of lead in water preserved in leaden cisterns, especially when cleanliness has not been attended to; but this subject will come before us again under the subject of lead. Delicate vegetable blues, such as litmus and violets, are reddened by being dipped in a solution of the gas. It combines with a great number of salifiable bases, and forms with them a class of salts which the French chemists have called *hydrosulphurets*. If we burn it in common air, we find that the results are water and sulphurous acid, and we thus arrive at a knowledge of the constituents of the gas. If one volume of sulphuretted hydrogen be detonated with one and a half volume of oxygen, the result is water, and one volume of sulphurous acid equal to that of the sulphuretted hydrogen employed: so that you perceive that by this experiment, we arrive at the conclusion that sulphuretted hydrogen is composed of 16 parts by weight of sulphur, and 1 by weight of hydrogen, and that its equivalent number is 17. Sulphuretted hydrogen is not permanent at high temperatures; if exposed to a white heat, sulphur is deposited from it, and we find also in that case, that one volume of sulphuretted hydrogen produces one volume of hydrogen, and deposits 16 parts by weight of sulphur.

It forms a curious combination with *chlorine*; and the result is *muriatic acid* and sulphur, that is, if the chlorine be not in excess. I shall now send a few bubbles of chlorine into a small jar containing sulphuretted hydrogen, and you will see an instantaneous precipitation of sulphur, and a diminution in the bulk of the gas, because the muriatic acid which is formed, is taken up by the water in which the sulphur is precipitated. The result of this experiment shows, that the hydrogen combines with the chlorine to form muriatic acid, and that, consequently, the sulphur is precipitated.

Iodine decomposes this gas very energetically; and the result is, the precipitation of the sulphur, and the formation of hydriodic acid. Perhaps it may be worth while to show this experiment, as it is a common mode of obtaining the hydriodic acid, and is a very good mode: it consists in passing sulphuretted hydrogen through a strong solution of iodine. You observe from these experiments what a tendency the hydrogen has to quit the sulphur, and to enter into new combinations, and this enables us readily to form compounds with hydrogen, by throwing the sulphur away. *Nitric acid* also decomposes this gas very easily, with great rapidity and intensity; the result is, the deposition of the sulphur, and the formation of water and nitrous acid; the hydrogen abstracting oxygen from the nitric acid, converting it into a nitrous acid, which you may know by the yellow fumes escaping from the vessel. The most curious combination resulting from the decomposition of sulphuretted hydrogen, is by decomposing it with *sulphurous acid*. Sulphur is precipitated from both the gases, and the oxygen and hydrogen unite to form water. This experiment may be easily shown, by mixing the two gases together in a flask; in which, after a little time, you will see the sulphur beginning to be deposited, and this deposition will go on until it is all thrown down.

We have now gone quite far enough to show you the general properties of the gas, and its composition. When *ammonia* is brought into contact with it, they combine and form *hydro-sulphuret of ammonia*, and the combination takes place in equal volumes of the gases. Exposed to the air, it gives out fumes which are, at first, of a white colour, but which afterwards become yellow, and it was, therefore, formerly called Boyle's fuming liquor of sulphur. It is an useful test for the metals, and may be procured by distilling, at nearly a red heat, a mixture of one part of sulphur, two of muriate of ammonia, and six of slaked lime. It would appear probable, that there is another combination of sulphur and hydrogen, which will be hereafter noticed in the history of the metals.

This then brings us to the next elementary body upon our list, which is *phosphorus*, which used formerly to be obtained by a very nauseous and disagreeable process, namely, by the evaporation of urine to dryness, and distilling the residue. We are indebted to Scheele for the knowledge of the means by which it is now easily procured, which consist of decomposing phosphoric acid. Here is some imperfect phosphoric acid, and if I mix it with about one-fourth its weight of charcoal, and submit it to a red heat in a coated earthen retort, the phosphorus passes over the neck of the retort, and then drops into the water contained in the receiver. The chemist is seldom called upon to make phosphorus, because it is sufficiently pure as it is manufactured in the large way, and considerably cheaper than he could make it.

The properties of this substance are very singular, and created great attention on its first discovery. It has a temperature of about 60° or 70°, the consistence of wax, but at a lower temperature it is brittle; its colour varies from a deep yellow to white; it has a peculiar smell, somewhat resembling garlic, and if you expose a stick of it, which has been wiped dry, to the air, you will observe that it is constantly exhaling these alliaceous fumes. There is a very strong analogy between the smell of phosphorus and electricity; and the fumes, which are constantly exhaled from phosphorus, are luminous in the dark with a bluish light. Its specific gravity is 17, water being 10: at a temperature of 105°, or thereabouts, it fuses, and at a temperature of from 500° to 600° it boils in close vessels, and rapidly evaporates. It requires to be handled with great caution, because when dry it is apt to inflame with the slightest friction; but the flame of phosphorus will not kindle paper, which is easily accounted for; the fumes of phosphoric acid coat over the paper, and prevent it from coming in contact with the oxygen of the air. The temperature at which phosphorus is said to take fire, is about 100°, but if it be coated with an oxide of phosphorus, as it generally is, it takes fire very readily at a much lower temperature, and therefore you should be very cautious how you handle it.

If you burn phosphorus in a confined portion of rare air, it enters into less perfect combustion, and you will find that there are three distinct *compounds,* which it forms by combining with *oxygen,*—an *oxide* of a yellow colour, a liquid acid, and a solid acid; the liquid being called *phosphorous acid,* and the solid the *phosphoric acid.* There is another acid of phosphorus below the phosphorous acid, called the *hypo-phosphorous acid,* which it may be well to mention here, and the table shows you the proportions of oxygen in each, according to the investigations of Sir Humphrey Davy. *Hypo-phosphorous acid* is composed of 45 phosphorus and 15 oxygen, so that its equivalent is 60. *Phosphorous acid* is composed of 45 phosphorus, and 30 oxygen, its equivalent being 75; and *phosphoric acid* is composed of 45 phosphorus, and 60 oxygen, so that its equivalent is 105.

Now the *oxide of phosphorus* is the white substance with which you see the sticks of phosphorus coated, after it has been kept some time in water; it is a very inflammable substance, but less fusible and volatile than the phosphorus, and is generally used for the manufacture of *fire-boxes.* The mode of making these fire boxes is, to put a piece of phosphorus in a small phial, and then to stir it about with a red hot wire, so as to be made to coat the interior of the bottle. A portion of the phosphorus is thus oxidized by its imperfect combustion, and when a bit of it is taken out and exposed to the air on a common match, it instantly inflames, and this is a very simple, and, indeed, the best mode of obtaining light.

Phosphorus is a very large constituent in the animal kingdom; it is found in large quantities in bones, sometimes it is found in vegetables, and at other times in mineral products, namely, in the form of phosphoric acid. We said that we were indebted to Scheele for the present mode of obtaining phosphorus, by decomposing phosphoric acid; and accordingly we burn bones to deprive them of their animal matter, and the residue is chiefly a phosphate of lime, upon which we pour diluted sulphuric acid; a sulphate of lime is formed, and phosphoric acid is left dissolved in the water, which is an impure phosphoric acid, but pure enough for the purpose of obtaining phosphorus. You take 20 pounds of the calcined bone earth firmly powdered, 20 quarts of water, and 8 pounds of sulphuric acid diluted with an equal quantity of water. You mix these well together, and simmer for some hours; you then strain off the liquor, and evaporate it to half its bulk, when it is to be left to cool; a white sediment falls down, from which the clear solution must be decanted and boiled to dryness in a glass vessel. A white mass remains, which, by being melted, forms a transparent glass, that consists of phosphoric acid, some phosphate, and sulphate of lime, and this is distilled with charcoal in the manner already mentioned.

If you saturate the liquid phosphoric acid with ammonia, you obtain the phosphate of ammonia, and if you drive off the ammonia, you will have the phosphoric acid in a state of purity; and this is one of the best modes by which phosphoric acid may be obtained pure.

The *phosphorous acid* is best obtained by mixing chloride of phosphorus with water, and filtering and evaporating the solution; a white crystallized solid is obtained, of a sour taste, and very soluble; it consists of phosphorous acid and water, and is, strictly speaking, a hydro-phosphorous acid. It was first examined in its pure state by Sir Humphrey Davy. The *hypo-phosphorous* acid is prepared by pouring four parts of water upon one part of phosphuret of barium, and when the evolution of the whole of the phosphuretted hydrogen gas has ceased, pour the whole upon a filter. To the filtered liquid, sulphuric acid must be added as long as any precipitate forms; the clear liquor contains the hypo-phosphorous acid in solution, which, when concentrated by evaporation, yields a sour viscid fluid, which is very attractive of oxygen, but incapable of crystallization.

Mr. Brande concluded the Lecture by showing the formation of phosphoric acid by the brilliant experiment of burning phosphorus in oxygen.

In the next Lecture, the remaining compounds of phosphorus will be considered, and the properties and some of the compounds of *carbon.*

FOREIGN DEPARTMENT.

ROYAL INSTITUTE OF FRANCE.

Sitting of the 2d October.

M. Julia Fontenelle presented a head of a New Zealander in a complete state of preservation. The teeth were sound and complete; the hair very black, rough, long, and curled; the skin was of a yellow colour, and the tattooed surface was black, very regular, and smooth. The head appeared to be that of a man about thirty or forty years old. Notwithstanding this, the sutures of the skull were perfectly ossified internally, which is seldom the case, excepting in the skulls of old persons. The occipital region was very large, its projection well marked, whilst the frontal cavity was narrow. There was a vertical bony septum, of more than two lines in height, in the interior of the skull, which the members of the Academy had an opportunity of seeing. This anatomical variety having only been observed in animals, the facial angle of this head, as well as of the inhabitants generally of New Zealand, being very narrow, the frontal cavity very limited, M. J. Fontenelle concludes, that this race may be considered as a sort of link between man and the ourang outang. The head presented by M. J. Fontenelle was evidently not tanned, but had only been immersed in a solution of chlorurct of sodium (marine salt), and then slowly dried.

GENERAL REPORT ON THE INVESTIGATIONS OF THE COUNCIL OF HEALTH IN PARIS, DURING 1825 AND 1826.

The number of suicides in 1824 was 371, in 1825, 396, and, in 1826, it amounted to 511. This increase of 115 suicides in one year, appears inexplicable; the assignable motives for the deed are as follow:—

Love, quarrels, or domestic calamities	100
Disease, disrelish for life, weakness, or alienation of mind	148
Bad conduct, gaming, fear of reproach or punishment	69
Misery, indigence, loss of situation, embarrassed circumstances	100
Motives unknown	94
	511

Of this number, 154 failed in effecting their object, and of the 396 suicides in 1825, 117 survived. Thus during 1825, 279 suicides effected; 1826, 357.

Very vague opinions exist respecting the time of the year at which suicides are most frequently committed. Taking a survey of the suicides committed in Paris during nine years, from 1817 to 1826 inclusive, the following is the average number for each month:—

January	213	July	301
February	218	August	296
March	275	September	248
April	374	October	198
May	323	November	181
June	336	December	217

The whole number amounting to 3,185, of which 627 took place in the three months of autumn, 648 in the three winter, 997 in the three spring, and 933 in the summer, months. In the month of April the greatest, and, in November, the smallest number of suicides was committed.

Submersions.

The number of persons drowned in 1825 was 315, in 1826, 376. "This increase," the members of the council say, "was not in proportion with the increase of the population, but it is to the existence of the canal of St. Martin, the approaches to which are not guarded, that we think it is to be attributed." In 1825, 39 persons were taken out alive. Assistance was administered to 73, 57 of whom were recalled to life. In 1826, the number of drowned persons taken out alive was 51. Assistance was administered to 98, 70 of whom recovered. These results are very satisfactory, if it be considered that, in 1825, of 91 drowned persons, to whom employment of means might have afforded a chance, 18 only were deprived of it; and that in 1826, of 109 drowned persons, apparently dead, and who remained less than twelve hours in the water, 11 only did not receive assistance. This result proves how important it is, that the government should watch with care institutions for the recovery of drowned persons, and what may be expected from vigilance, and the early employment of proper means.

General Mortality.

The report of 1825 says nothing on this subject; that of 1826 gives the following results:—From calculations made in the Bureau of the Prefect of the Police, the total number of deaths, for the year 1826, amounted to 25,898,—16,978 of whom died in the twelve divisions, and 8,920 in the hospitals. The diseases were classed by the Council in the following order:

	Males.	Females.	Total.
Pulmonary phthises	1,286	1,849	3,135
Enteritis	1,220	995	2,215
Pulmonary cataract	912	1,093	2,005
Gastritis	883	951	1,834
Peripneumonia	701	685	1,386

Apoplexy	597	382	979
Scirrhus and cancer ..	154	506	660
Aneurism of the heart..	373	404	777
Peritonitis	207	355	562
Cephalitis............	160	151	311
Cerebral fever	280	253	533
Putrid fever	163	93	256
Malign fever..........	117	98	215
Bilious fever..........	63	38	101
Inflammatory fever	42	30	72
IN INFANTS.	Boys.	Girls.	
Convulsions	926	846	1,772
Measles..............	198	210	408
Croup	154	128	282
Dentition	125	124	249
Small-pox	102	85	187
Still-born infants	717	497	1,214
Infants dead between 1st and 3d month	464	385	849

This table only gives a total of.. 20,001

which leaves 5,897 deaths caused by different other diseases. But those who know with what want of care the causes of death are indicated in practice, will not place much reliance on this classification. It is, however, almost impossible to obtain one more accurate; still some idea may be formed of those diseases which are the most fatal. By adding the number of pulmonary catarrhs to that of pulmonary phthisis, it will be found that this disease is the cause of a fifth of the mortality; and if we take from the above calculation the five thousand deaths occurring in childhood, it will be seen that pulmonary consumption produces more than a fourth of the mortality in adults. The authors of the report are astonished at the mortality in infants from convulsions, measles and croup. According to them, the first, almost always proceeding from irritation of the primæ viæ, may always be prevented by the habitual use of baths and emollients, internally and externally, and the treatment of the two last diseases is now so rationally established, that success ought always to be certain. We do not know where the reporter of the Council of Health derived his notions of these diseases; if it be true that he can almost always cure the croup, he ought to communicate his secret to all practitioners, who would be delighted at the intelligence. We will terminate this extract by an allusion to a very singular phenomenon observed by the Council. There are in Paris two divisions, the third and fourth, in which the number of births is almost always double that of the deaths. There are two others, the 9th and 10th, in which the number of deaths is almost double that of the births. Hence, in the space of five years, (from 1819 to 1824,) there were born, in the third and fourth divisions, 13,520 persons, and there were only 7,981 deaths; whilst in the 9th and 10th there were 33,159 deaths, and only 17,269 births. The Council asks what can be the cause of this difference? It will be found, without any doubt, in the situation of the hospitals; and in the different condition of the inhabitants. The recent investigations, we believe of M. Villerme in particular, show the influence which the enjoyment of comforts and even luxuries have in prolonging the duration of life.

ANATOMICAL RESEARCHES ON THE EPITHELIUM, OR INTERNAL EPIDERMIS, BY M. LELUT.*

It has long been disputed by anatomists, whether the surfaces of the mucous membranes, in the interior of the body, are, or are not, covered by a structure, similar in most of its characters to the enveloping texture of the external surfaces, usually called the *epidermis*. Some have admitted that there is such a covering, and have argued that it proceeds but a little way into the interior of the alimentary tube, and other cavities communicating with the external surfaces of the body; but the extent of this covering has not, hitherto, been very accurately defined. The anatomists of the present day, who have admitted the existence of such a tissue, (here, by way of distinction from the epidermis, called the *epithelium,*) have done so rather from analogy than from demonstrative evidence; founding their reasonings upon the axiom laid down by Bichat, but which it seems he copied from Bonn,† that all the mucous membranes are only a duplicature of the skin in the interior of the animal; and, therefore, that it must, *par consequence*, be furnished with a sort of cuticle, or epithelium. Others have imagined that they have recognized it only in certain points, thus admitting an infraction of the law of continuity of the two teguments, without having been able to point out with certainty the places where it exists, and where it does not exist.

Albinus‡ admitted the existence of the epithelium on the tongue, which he knew was continued from the epidermis; but he does not speak of it as extending to the fauces. Bonn went further than Albinus; he states, that he had traced it as covering the entire buccal cavity and the pharynx; but he did not recognize it as extending lower. Haller[*] admits the existence of the epidermis on all the mucous membranes without exception; he appears to have regarded the internal or villous membranes of the stomach, as a continuation of the epithelium of the œsophagus. But Morgagni,[†] not content with admitting its existence to this extent, asserts that it not only lines all the great visceral cavities, but also the smallest canals; as, for example, the lachrymal passages, the Eustachian tubes, the parotid ducts, and the mucous follicles. Chaussier,[‡] who was acquainted with the arrangement of the epithelium in the œsophagus and stomach of the horse, appears to think that the mucous membrane of the alimentary canal, below the diaphragm, is not a continuation of that of the œsophagus. H. Cloquet has adopted this opinion. Bichat did not think it possible to show the existence of the epidermis on the surfaces of the mucous membrane of the stomach, the intestines, the bladder, and the excretory ducts. Meckel considers that the epithelium cannot be traced below the cardiac opening of the stomach. Beclard was of the same opinion; but he says that it might be traced in the vagina as far as the orifice of the uterus, where it ceased. Such appear to be the principal conclusions arrived at by some of the most distinguished anatomists, respecting the distribution of this structure.

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* Repertoire d'Anatomie, tom. 3. trimestre 2.

† Andreas Bonn, Dissertatio de continuationibus membranarum, t. ii.

‡ Annotationes academ. T. L. Lib. 1. xii.

In addition to the ordinary modes of dissection, I had recourse to dissection with a finely cutting instrument, to maceration, to desiccation on a plate of glass, to immersion in diluted acid, and in a weak solution of corrosive sublimate, to coction in boiling water. These two last modes I found to succeed best, but I often dissected the parts under water as well as out of water. In my examination of the structure of the superficial part of the alimentary tube, and of the cavities into which it is continued, I almost always dissected all the tunics of the part, so as not to be deceived by any false analogies, and when the epithelium was exposed, I immediately submitted it to the action of the chemical agents which I have just mentioned. In this way I examined the internal surface of all the mucous membranes, without exception; and am, therefore, able to state, with some degree of certainty, in what parts the epithelium is present, and in which it is wanting.

The epithelium, or internal epidermis, exists only on the gastro-pulmonary mucous membranes, on the genito-urinary, and on the mammary. The external auditory canal is lined with epidermis.

It would appear from these investigations, that the epithelium extends no further than the cardia. I have constantly found four membranes in the stomach and bowels, a mucous, a cellular, a muscular, and a peritoneal; and I have found nothing more. All the other modes of dissection which I employed for the examination of the epithelium, above the cardia, served to convince me that it *does not exist below the diaphragm.*

The epidermis, or the skin of the eye-lids, ceases at their anterior free edge, immediately behind the cilia, which appear to perforate it. Beyond this point the palpebral and ocular conjunctiva present nothing which resembles it; nor could I find any thing analogous to it in the lachrymal passages. The epidermis of the skin of the nose ceases, in fact, about two or three lines in front of the edge of the anterior opening of the nostrils; but in adults, at about the distance of seven or eight lines. This termination is rather abrupt; but beyond that point it presents nothing which can be said to resemble the epithelium.

The mucous membrane of the Eustachian tube appears to want the epithelium at its orifice; but to have that structure continued in the remainder of its course. The cutaneous epidermis, ceases suddenly at the nasal, anal, and ocular fissures, and is continued from the mouth as far as the cardiac opening of the stomach. There is no epithelium on the conjunctiva or its dependencies; nor on the nasal, or anal mucous membranes.

The epithelium does not exist on the mucous membrane of the urinary organs; it exists only on the mucous membrane of the genital organs of women, not of men, extending as far as the orifice of the uterus, and is a direct continuation of the epidermis from the vulva.

Investigations on so delicate and minute a structure as the epithelium, must necessarily be attended with considerable difficulty; and with whatever skill or care they be conducted, the results of such investigations should be received with considerable caution. M. Lelut denies the existence of the epithelium on the inner surface of the stomach and intestines; Professor Rudolphi holds a contrary opinion: the former asserts, that it is wanting on the mucous membrane of the urinary organs, the latter that he has been enabled to trace it on these parts. Fortunately, however, for mankind, the importance of the subject is scarcely proportioned to its difficulty.

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[*] Elementa Physiologiæ Corporis Humani, tom. v. lxii. sect. 1. p. 12. et seq.

[†] Prodromo della grand' Anatomia. Firenze, 1819.

[‡] Journal General de Medicine de Sedillot, tom. xv. p. 33.

ON TRANSVERSE FRACTURES OF THE STERNUM OCCURRING DURING LABOUR.

Fracture of the sternum from muscular action only, is an accident of very rare occurrence, and can only take place, we should imagine, when the sterno-mastoid and recti abdominis muscles are both put in powerful action at the same time, and the portions of the sternum are not very firmly united. Two cases of this kind occurred in the practice of M. Chaussier, physician of the Maison d'Accouchement at Paris; the accident in each case took place during labour, and was followed by the death of the patients.

ROYAL INFIRMARY, EDINBURGH.

Successful Case of Operation for Empyema, supervening on a Fracture of the Sixth and Seventh Ribs.

The following are the particulars of the case of empyema alluded to in a former report, having occurred in consequence of mechanical injury inflicted on the costal pleura, in a constitution otherwise perfectly sound; its success can scarcely be considered an exception to the usually fatal results of the operation of paracentesis performed for the evacuation of collections of matter in the chest, produced by a different form of disease.

Walter Gibb, a healthy old man of 68, was received into the hospital, under the care of Dr. Hunter, on the 3d of October, for a fracture of the sixth and seventh ribs, which was inflicted by a fall on their angles about eight days previous to his admission. During that time he walked about as usual, without a bandage, or any other precautionary measure, to keep the injured parts in a state of quiescence, which may probably have led to the subsequent inflammation of the pleura in the vicinity of the fractare. On his reception he complained of a severe pain in the side, and difficulty of respiration; his pulse was 100, his bowels costive, and tongue whitish. He was then bled to thirty ounces, from which he expresed himself much relieved. On the day following a stethoscopic examination was made, which indicated an alteration in the pulmonary tissue having taken place in the region of the fracture. During the night his pulse fell to 94, and he seemed as tranquil as the nature of the accident might be expected to permit. The pain of side and difficulty of breathing having again returned on the 6th; he was bled to sixteen ounces, by which he also found temporary relief. The preceding symptoms, however, not being entirely removed by the measures adopted, he was bled a third time to sixteen ounces, and was considered as going on comparatively well from this period to the eleventh, when he had a severe rigor in the night, and the puncture in the vein, and the parts around it, were found to be inflamed, hard, tense, and painful. In consequence of these appearances, Dr. Hunter made an incision into the integuments of the arm, ordered the whole limb to be enveloped in ice, the patient to take the saline solution, with tartrate of antimony, and to be put on fever diet.

On the next day, (the 12th,) the swelling had considerably extended along the arm, being greatest over the biceps muscle; he rested tolerably well, pulse 98, tongue slightly furrred, bowels costive, and anxious for a more ample supply of diet. He was bled again to deliquum, which was produced by the abstraction of about sixteen ounces of blood, and the ice and saline solution ordered to be continued as before. Under this treatment he continued from the thirteenth to the twenty-first; he continued to improve; the pulse alternated between eighty and ninety, the pain and swelling of the arm gradually subsided, the wound went on to cicatrise favourably, and he only complained of occasional pain in the side, and of a trivial short cough. On the latter date he became affected with severe dyspnœa, and pain of chest, for which a large blister, with the saline solution and antimony, were prescribed with some benefit.

On the 23d, the pectoral symptoms again returned, and he complained of severe pain in the neighbourhood of the fractured ribs. On examining the side, a circumscribed, inflamed, and pointing tumour, fluctuating to the touch, and reducible by pressure and position seemingly into the cavity of the chest, was detected. Around this tumour, the integuments were also puffy and œdematous, as has been observed in similar cases.

After a short consultation on the 4th of November, the patient was removed to the theatre, where Dr. Hunter performed the operation, by cautiously cutting through the most prominent part of the tumour, between the sixth and seventh ribs into the pleura with a scalpel, when having penetrated the abscess, and pressure being made on the chest, a gush of healthy purulent matter, to the amount of a few ounces, took place from the incision. A tint of oiled lint having been inserted in the wound, and the patient removed, Dr. Hunter informed the class that he passed his fingers between the fractured ends of the ribs, distinctly felt their rough extremities as if but recently broken; that consequently no effort had been made by nature to repair the injury by ossific union, and that he feared from this circumstance, taken in connexion with the age of the patient, the nature of the affection which attacked his arm during his residence in the hospital, and the reduced state of his general health, he could give but a very unfavourable prognosis of the termination of the case! Art, not nature, in all probability, was here in fault, as walking about with fractured ribs for a week, could not be supposed to have been a state of living the most favourable to the production of an ossific union; and the inflammation excited during that time, with the consequent formation of an abscess around the extremities of the fractured ribs, might have so far explained their non-union during the patient's residence in the hospital, as to diminish the Doctor's surprise at the circumstance, and induce him to deliver a more guarded opinion.

The subsequent, treatment and features of the case, present nothing of sufficient importance, to be reduced into a diurnal register. The pain and difficulty of breathing gradually declined with the expansion of the lung, as indicated by the resonance of the chest on percussion, and the application of the stethoscope. The discharge progressively diminished from about three ounces in the twenty-four hours, until it entirely ceased; and, on the 25th of December, the wound was entirely cicatrised. Having had occasional sweats in the night, he was ordered to take the infusion of roses, with sulphuric acid, until affecting his bowels it was discontinued, and the chalk mixture substituted, which produced the desired effect. A small quantity of wine was allowed daily, with light nutritious diet; and his health is now so far established, that he intends leaving the hospital in a few days from the present date.

Scotus.

Edinburgh, Jan. 6, 1828.

ST. THOMAS'S HOSPITAL.

FRACTURE OF THE SEVENTH CERVICAL VERTEBRA, WITH COMPRESSION OF THE SPINAL MARROW. MR. GREEN'S CLINICAL REMARKS.

H. Cooper, 35 years of age, a stout muscular man, was admitted into the Hospital on 6th of December, under the care of Mr. Green, on account of severe injury to the spine.

The accident occurred on the 1st, five days before admission, from a sack of flour falling a distance of eighteen feet upon the man's neck and shoulders. As soon as he had recovered from the immediate stun of the blow, he found that he was deprived of power in his lower extremities; he was conveyed home, and four hours afterwards was bled. The blood-letting was repeated on the following day; aperient injections were administered, and the bladder being paralysed, the urine was drawn off. These were the principal means adopted prior to the patient's admission into the Hospital.

On examination, the lower extremities were found to be completely devoid of sensation and volition: there was no sense of feeling over the abdomen and lower part of the chest: the penis was *not* erect, or even partially so. The power of motion was imperfectly executed in the upper extremities; he could only raise his arms to a certain extent: he complained of much pain upon attempting to move his head, and there was also a constant dull pain in this part. The breathing was exclusively performed by the diaphragm, and upon deep inspiration, pain was occasioned. The spine was attentively examined, but no displacement could be detected; Mr. Green was therefore disposed to attribute the paralytic condition to pressure from effusion; he considered that the symptoms were too severe to be the product of concussion simply.

The means employed were, repeated cupping over the spine, the administration of injections, and drawing off the urine three times a day. In the course of a few days after the patient's admission, the urine was decidedly ammoniacal, and soon became highly offensive; the bladder eventually lost its tone, and the urine dribbled away. In this distressing condition, the poor man remained until the morning of the 23d, seventeen days after admission, and twenty-two from the occurrence of the accident. Sloughs had formed on the sacrum and nates, to a very considerable extent.

Post Mortem Examination.

The crura of the arch of the seventh cervical vertebra were found to be broken through; the right inferior oblique process was dislocated forwards to the extent of a quarter of an inch, and there was a transverse fracture through the body of the seventh cervical vertebra. A small coagulum of blood was seen upon the theca, under the arch of the first dorsal vertebra; the membranes about this part were more vascular than natural, and were observed to be much distended. On slitting them open, a considerable quantity of serous fluid escaped, and the spinal marrow beneath the arch of the last cervical vertebra was quite pultaceous; indeed some portion of it was so thin that it was not more than of the consistence of cream.

Mr. Green made some clinical remarks upon this case on Saturday last, in which he observed that there were signs of returning sensation in the lower extremities on the eighth day after the patient's admission, he then being capable of discriminating which foot was touched; but on the following day, the symptoms of returning sensibility had subsided. Mr. Green said, that he was disposed to attribute this circumstance to the fact of there not being much actual compression of the marrow, although there was considerable displacement of bone. He considered, that by the injury which had broken the bone, there was at the same time a lesion of the spinal marrow; that a subsequent inflammatory action was set up, and that at the commencement of this, under the excitement, the slight return of sensibility took place.

The softened condition of the spinal marrow was regarded by Mr. Green as the effect of inflammation, succeeding to injury of its substance, rather than from any compression by the bone.

With respect to the return of sensibility, said to be observed on the eighth day, and so ingeniously explained by Mr. Green, we may be allowed to say that we question whether there was not some illusion on this point. We visited the patient from day to day throughout his illness; and we saw him on the eighth day with Mr. Green, when, from the circumstance of his being enabled to say which foot was pinched, it was considered that sensation had returned.—Now the fact was, that the patient himself *saw* which foot was laid hold of, for upon examining him subsequently, we found to our complete satisfaction that *there was no return of sensibility.* And this we state, not from any desire of being captious, but with a view of establishing truth, and doing away with what Cullen has properly termed—"false facts."

MALIGNANT DISEASE OF THE FOOT.—AMPUTATION OF THE LEG, BY MR. TRAVERS.

G. K. a baker, ætat. 20, pallid and cachectic in appearance, came into the Hospital on the 20th of December, under the care of Mr. Travers, on account of disease of the left foot.

The whole of the foot, as far as the bend of the ancle, was enormously swollen and distorted in appearance, and about two thirds of the upper part, and a considerable portion of the inner side, were in a state of ulceration. The sore was superficial, irregular, and covered with a dirty yellowish slough; there was a thin discharge, having an offensive odour of a peculiar kind. The portion of the foot not ulcerated was very much indurated, and the integuments of a purplish colour; on the outer part was observed a distinct tubercular projection. The toes were somewhat œdematous, and there was swelling at the under part of the foot. The account which the patient gave of the origin and progress of the disease was, that about one year previously he received severe injury to the foot from a horse trampling upon it, that it became swollen and painful, and he was lame for a considerable time, although he went about his ordinary employment. He had recourse to various means under the directions of several surgeons, such as leeches, fomentations, poultices, &c., but with little or no relief. At one period, a few months after the injury, under the use of poultices, a small sore formed on the dorsum, which healed in the course of a few days. At length small tubercles formed, and these growing from time to time, and then ulcerating, constituted the disease with which the patient was admitted into the Hospital.

Mr. Travers, on examining the case, stated his opinion to be, that the disease was of a malignant nature, and consequently incurable; he therefore recommended the limb to be removed. There was no glandular enlargement or thickening of the absorbents at any part of the limb; the man, as we before stated, was cachectic in appearance, but his general health had not really suffered much; the diseased part was very painful, and precluded sleep.

The limb was removed below the knee, by Mr. Travers, on Saturday, Jan. 5th, and the patient at the conclusion of this report, (the 8th,) is going on well.

THE LANCET.

London, Saturday, January 12, 1828.

We are rejoiced to observe the activity which pervades the profession in promoting the cause of medical reform. Meetings of practitioners have recently been held in various parts of the country, and we have received several drafts of petitions intended to be presented to Parliament, which are all animated by the best spirit, and which we have only forborne to insert, because they in fact re-echo the sentiments of the London petitioners. Let Surgeons throughout the kingdom persevere in this course, and they may count upon a speedy triumph. They have nothing to apprehend but from a relaxation of their own exertions; for the opposition they will have to encounter on the part of the expiring surgical oligarchy is absolutely contempible, and there is every reason to believe that the legislature is disposed, not merely to entertain the question of reform, but to lay the axe to the root of the tree of corruption; to cleanse the Augean stable of medical abuses, and to carry a comprehensive scheme of reform into effect.

Thursday, the 14th of February, is the day appointed for the delivery of the thing called the Hunterian Oration; and we have reason to believe, that it is the intention of the Surgical Committee to convene a general meeting of the profession for the following Saturday. At this meeting, much may be effected; in fact, if decisive, energetic, uncompromising measures be adopted, the object which every independent member of the profession has most at heart may be at once accomplished. Above all, let no half measures be countenanced. The root of the evil lies in the irresponsibility of the Council, and in their consequent corruption and imbecility. To listen to any terms of conciliation, therefore, which might be offered by such a body, would only lead to a perpetuation of the evil. The whole system of government, as regards the surgical profession, must undergo an entire change before security can be afforded to the public, or the members of the College can be restored to dignity and respectability.

We have just received a document which furnishes an additional proof, if indeed additional proof were wanting, of the base, sordid, and grovelling spirit, which uniformly characterises the proceedings of the Council; a spirit, which is not only utterly at variance with the sentiments that ought to animate a scientific body, but which is calculated to increase tenfold, the mischief that has already flowed from their baneful domination. The Council have just put forth a new series of regulations, and, considering the circumstances under which they have been promulgated, and the opportunities the Council have had of retracing their steps, are far more detestable in spirit, and more likely to be injurious in their operation, than any that have preceded them.

To this precious document we shall have frequent opportunities of adverting, before the general meeting takes place. In the mean time, we earnestly exhort every member of the profession to be upon the alert. The oligarchy is expiring. The Hydra of medical corruption is at its last gasp, and one well-directed blow may rid us of a monster, whose noxious influence has retarded the progress of science, disgraced the character of British surgery, and rendered the profession an object of public scorn, or of public apprehension.

The College has once more set in motion the base tools of its infamous power; and its members are to be again traduced and vilified, in order that an imbecile and worthless faction may triumph over the rights of their professional brethren; but we have possession of the field, and The Lancet is unbroken.

CONSIDERING the inexpediency of a compulsory system of apprenticeship, and of its projected modification, to the true interests of the Dublin College of Surgeons, as sufficiently established, we shall proceed to examine the justice of the measure, as it affects the student and society. The discussion of the question under these comprehensive heads imposes on us the necessity of advancing principles which may subject us to the Sardonic surprise of a certain class of men, who have hitherto looked on medical corporations as self-existent bodies, connected by no stronger ties of social obligation with the rest of mankind, than the receipt of a fee, and the exaction of some petty tax for the privilege of acquiring professional information. Entertaining somewhat more extended views of social relations than these gentlemen, we must inform them, however disagreeable the announcement may be to their corporate sensibility, that the constitution of this country does not sanction any chartered body in the exercise of functions independent of the general welfare of the community. All the institutions of this kind with which we happen to be acquainted were, at least in the object of their establishment, inseparably associated with the common good of the state; being designed for the double purpose of performing some public duties, and promoting the prosperity of such as sought a means of living through their instrumentality. The same spirit of British freedom and justice which thus wisely united corporations with the prosperity of each department of society, also requires that no unnecessary obstacle should be opposed to the admission of those persons who wish to avail themselves of the advantages which they confer. By this moral attribute of the country, comprehending the happiness of all without infringing on the rights of any, the tendency of humanity to abuse chartered power has been repressed; and, acknowledging no personal distinctions, the qualified claimant has been protected from corporate exclusion. In the salutary influence of this national usage, we find a security against the possibility of any industrious individual being excluded on unjust grounds from the high honours of an alderman or lord mayor, in consequence of the neglect of duty or perversion of charters by our civic authorities. From the operation of this law of equality no sphere of society has been exempt, having given the diplomatic talents of a cotton manufacturer's son to direct the councils of a king, and filled the archiepiscopal throne of Dublin and all Ireland with controversial dissension with the offspring of a mohair-button maker. The Dublin College of Surgeons, however, has taken quite a different view of the "social compact," and of the rights of their countrymen. They claim an entire exemption from the irksome bond of reciprocal obligation, and will neither fulfil the conditions of their incorporation, nor admit of their performance by others. Medical advice and medical education are with them a species of commodity, of which they conceive that they alone have the right to fix the price. The practitioner must receive a certain sum for his professional assistance, and pay himself at a defined rate for the liberty of affording it, or society is to be deprived of aid, and individuals prevented from supplying it on more moderate terms. Money, in short, is the standard which they assume for the estimation of practising, and learning in an efficient manner the science of medicine and surgery. That the profession over which they preside is no less a source of life than a means of living to thousands; that the invalid looks to it for cheap and effectual relief,—the father, as a provision for his offspring; are considerations on which they never bestow a thought. Now, if these rational expectations of patients and parents ought to be seriously taken into account in the regulation of the medical policies of any country; that country, we have no hesitation in saying, is Ireland. The candidates for professional honours there, and the population by whom they are subsequently to be supported, partake of the proverbial poverty of that part of the empire. It is well known that the former are derived from the middle rank of life, with no superfluous property to be expended on the extravagant regulations of Colleges or Universities; and that the latter does not include what can be called a resident aristocracy, or even a wealthy stock of yeomanry, from whom the round sums laid out on education might be afterwards collected. Yet, of the consequences of neglecting these important circumstances in adapting laws to the condition of the country, no men can be better informed than the leading members of the medical corporations of Dublin. The painful remembrance of having experienced in their own instances the "res angusta domi" need not now be forced on the attention of many of them who have risen to eminence and affluence from actual indigence. They are also perfectly aware, that perhaps in no part of Europe is medical advice obtained at so high a price as in Ireland; often, in fact, amounting to an absolute prohibition of its being sought for even by respectable families; and that when it is procured at a lower rate, it is in general from an inferior order of practitioners, but little capable of administering it in a proper manner. Seldom indeed a day passes without some of these principal advocates of expensive tuition and advice having an unfortunate victim of ignorance forwarded to them to Town, whose treatment enlivens the monotony of consultation by eliciting sarcastic jokes on the Edinburgh Sangrados of the provinces. With a knowledge of the cause, and the power of preventing such occurrences, this conduct of the "lions" of the metropolis is, to say the least of it, extremely inconsistent; for, of the practice which they thus condemn, and the practitioners whom they affect to hold in the utmost contempt, they themselves are, in point of fact, the legitimate source. In turning both into ridicule, they overlook the disparity of their regulations to the exigencies of the society for which they are presumed to have been framed. They forget, in the indulgence of their contemptuous sallies against every practitioner not of the Dublin College of Surgeons, that apprentice fees, hospital fees, diploma fees, member fees, all fixed at a rate higher than in any other country, are the true causes of the expatriation and ignorance of the Irish student, and the consequent loss of competent medical assistance to the majority of the population of the country. With all these facts before them, their independent notions of corporate rights would seem to justify them in the enactment of by-laws hostile to the general welfare of society. Their exalted ideas of the respectability of the profession, excluding every consideration of its true objects, require degrees of rank and fortune as qualifications for its pursuit, which the majority of its members can never possess. Their opinions of the value of medical advice are scarcely less extravagant, being estimated at a price which the multitude are unable to pay; and a general practitioner in England might well smile at the honourable scruples of the Irish profession on the subject of fees. To such an extent have the latter foibles been carried in the councils of the Irish College, that we have known one highly respectable licentiate of that body to have been refused admission as a member, because his father at one time shod horses; and another ignoble wight threatened with the "black brans" for the vulgar crime of having received a silver fee for his services. Such conceptions of the dignity of the healing art, honourable, like every other line of business, only in proportion to its utility, and, after all such vapouring, followed in general for its profits, are excessively silly, if not mischievous. No aristocratic prejudices of its members should, or indeed ever can, entirely exclude persons, otherwise qualified, from its exercise; or prevent them from using their discretion in regulating their bill by the means of those whom they attend, rather than by any vain regard to professional respectability. We would, therefore, appeal to the better sense of the leading members of the College, if it would not be more consistent with their duty as directors of a national establishment, designed for the diffusion of medical education and the security of the public health, to take these plain objects of their incorporation into consideration, than to separate themselves from that union of interests which binds the several departments of society in a state of reciprocal dependence. And by holding out in support of useless ceremonies of tuition, to deprive the pupil of the sources of information; the patient of effectual and attainable advice; the parent of a provision for a part of his family; and to render those local advantages for the conducting of a great school of medicine and surgery unavailing, which Dublin, we believe, possesses to a more ample extent than any other British capital.

A friend of ours was sitting lately in Callow and Wilson's Reading Room, when that facetious wight, Joe Burns, entered, and took up the first weekly excrescence of Macleod's Yellow Fungus. He had just raised it to reading distance, when he suddenly removed it from the neighbourhood of his olfactory organ, with a gesture and expression of face indicating strong disgust. Joe was asked what he had got there, "a Bat's * * * *" was the short reply; affording an unexpected confirmation of the naturalist's remark on the bat-kind; "alvi dejectiones in hoc genere fœtore horribili imbutæ sunt."

A garbled, and, in many respects, an erroneous statement, has gone forth respecting a duel which recently took place between Dr. Forbes and a M. Tonson. We abstain from alluding further to this transaction until an authorized account of it, which is in preparation, shall be presented to the public.

VERY IMPORTANT INTELLIGENCE!

Mr. Brodie, the eminent surgeon, when opening the body of the late Earl of Pembroke, cut his finger with one of the instruments he used on that occasion, and was so ill for several days afterwards, as to be incapable of attending his patients.—*Morning Post.*

On Monday morning last, at nine o'clock precisely, a cat sneezed at the door of No. 14, Saville Row.

EPITAPHIUM

LAPIDI INFELICIS ISTIUS LITHOTOMI

BENJAMINI TRAVERS

INSCRIBENDUM.

QUI MODO TOT SECUIT SANOS MINUS ARTE PERITUS
INVENIT LAPIDEM: NE DUBITES; OBIIT.

ALTERUM.

INVENIT LAPIDEM TRAVERSIUS; ANNE REQUIRIS
PLURA? VEL HOC IPSUM SAT MONET; OCCUBUIT.

A Practical Essay on Stricture of the Rectum; &c. By F. Salmon, Surgeon to the General Dispensary Aldersgate-street. London: Whittaker, and Callow and Wilson. 8vo. pp. 180.

The author of this work, announces in his preface that his object is "to prove that stricture of the rectum is a very common disease, inducing other important affections, and that surgery furnishes us with means adequate to its removal or alleviation, provided *such* means are exercised with judgment and science."

The first chapter, in accordance with the fashion of the times, is devoted to the anatomy and physiology of the part. We shall leave this, and proceed to the analysis of the second chapter, which treats of the causes and different kinds of stricture.

In the consideration of the *causes*, the opinion of Mr. White of Bath is quoted, who affirms that the predisposing cause of stricture of the rectum is a congenital narrowing of the gut, at or about the termination of the sigmoid flexure of the colon. In this opinion the author of the work before us fully concurs, and, in confirmation, states that he has found stricture existing in children at a very early age; he has also known the disease to prevail in several members of the same family. Habitual costiveness, the use of drastic purgatives, and "indigestion," are further enumerated as causes of stricture. A peculiar constriction of the *anus*, Mr. Salmon also regards as an occasional cause. On this subject he says,

> "The exceeding thickness, and consequent powerful action of the sphincter ani muscles, opposes (oppose) the natural action of the bowel, which causes patients to strain violently, and the abdominal muscles thus excited press upon the superior part of the gut and sigmoid flexure of the colon, giving rise to contraction in those parts more especially. I have scarcely ever found this constriction unattended with obstruction very high up in the rectum. There is a remarkable similarity between this instance and that of contraction of the orifice of the urethra, which will invariably be found connected with stricture in the bulb, or membranous part of the canal—generally the former."

It is not quite clear to us, however, that this constriction of the anus does not stand in the relation of an *effect* to the stricture, rather than a *cause*. The next source of stricture, to use the words of the author, is "an enlarged and tender condition of the uterus;" the enlargement of the womb in such cases by pressure occasioning a partial obliteration of the intestinal cavity, and, ultimately, fistulous communications forming between the vagina and rectum.

We could here wish Mr. Salmon had been more precise with respect to his definition of the uterine disease, for we must confess our scepticism as to the enlargement of the uterus producing stricture simply from pressure; we should rather be disposed to refer the affection of the bowel to one common disease, attacking both it and the uterus. If we admit that an enlargement of the womb will, from its mechanical effect, produce stricture of the gut, we should expect to find this disease prevailing in various enlarged conditions of the womb, for instance, pregnancy.

Lastly, amongst the causes of stricture, piles, tumours, or excrescences growing in the bowel, and enlargement of the prostate gland, are spoken of. With respect to fistula in ano, the author believes that it occurs more frequently "as a consequence, than as a cause of stricture."

> "In short," observes the author, "any cause, constitutional or mechanical, creating irritation in the rectum, may ultimately induce spasmodic action of its muscular coat; this, in process of time, will become permanent; in the commencement creating simple spasmodic stricture, and, from continuation, permanent affection of the part."

Mr. Salmon thinks that the greater portion of strictures are simply spasmodic in the beginning, with no organic alteration; but he states that, from continuance of disease, the bowel eventually becomes indurated and thickened, so as to lose all traces of its original structure, and assume the appearance of a fleshy chord.

In reference to the morbid anatomy of stricture, he observes that the internal surface of the mucous coat of the bowel, in most instances is not "much changed," but that, in some cases, where the disease has been of long standing, accompanied with much irritation, he has seen patches of ulceration—and, in extreme cases, adhesions between the rectum and bladder, uterus and vagina, and fistulous communications between these parts.

Further,—

"In some instances, bands of a firm consistence extend from side to side, forming septa across the bowel, while in others it is contracted at a particular part in a circular form, the gut immediately above, from the perpetual lodgment of fæces, being dilated in the form of an hour-glass. But the peculiar and morbid change generally found, appears to be the result of severe thickening of the bowel, from deposition in the cellular substance between its muscular and mucous coats. In the worst cases of stricture this will, occasionally, be found converted into a kind of gristly substance, possessing, nevertheles, a character very different from the true scirrhous affection of the intestines.

As regards the *situation* of stricture, the author remarks that it is, for the most part, at a distance of five or six inches from the anus, and that next in frequency it is found at the junction of the sigmoid flexure of the colon with the rectum. The true carcinomatous stricture, it is stated, is most usually near to the anus.

The symptoms are next considered, and described in a brief and perspicuous manner. Subsequently to this, we arrive at an important point,—the treatment, which is divided into constitutional, and surgical, "or that connected with the introduction of intruments."

In the constitutional treatment, topical blood-letting, by means of leeches or cupping, is recommended; the necessity of attending to the condition of the bowels is forcibly dwelt upon, as also the ill-effects resulting from the irritation of violent purgatives. Castor oil, and electuary of senna, with sulphur, are recommended to be taken in such quantities as may produce an evacuation daily. Oleaginous injections, daily administered, are also said to be greatly conducive to the regularity of the bowels, and, in some instances, even to supersede the necessity for aperient medicine taken by the mouth. On dietetics our author enlarges considerably, severely animadverting on those "who spur beyond its wiser will, the jaded appetite;" then we have a tirade against drinking at meals, tea, and the "injurious custom of taking late dinners." On these subjects we may be allowed to remark, *en passant*, that attempts to lay down general rules, with respect to diet, are absurd in the extreme.

In considering the surgical treatment of stricture, with reference to the use of the bougie, Mr. Salmon observes, that this is one of the most important curative means, and he gives ample directions for the introduction of the instrument, which he observes should be not less than eleven inches in length, and should be passed into the sigmoid flexure of the colon; the operation is to be repeated at intervals of four or five days, and the bougie to be gradually increased in size. The kind of bougie which Mr. Salmon recommends, is that made of plaster, which, previously to using it, should be immersed in hot water.

The operation of dividing the stricture, a practice which we believe is recommended in certain cases, even by Wiseman, is said by Mr. Salmon to be seldom or ever practicable, inasmuch as he is of opinion, that its seat is usually beyond the reach of the knife. We may here observe, that there are cases in which the stricture is near to the anus, and consists simply of a membranous band, a division of which is attended with the most favourable result; many cases of this description have fallen under our observation.

On carcinomatous stricture of the rectum, to which a chapter is devoted, we find nothing particularly worthy of remark. The author next proceeds to the *effects* of stricture, which are well illustrated by a series of instructive cases; first, showing various consequent diseases of the urinary organs in the male, and upon the genital organs (the uterus and vagina) in the female.

Two cases of enormous permanent distention of the colon are recorded, occurring as the consequence of a stricture of the rectum; the concluding portion of the volume is appropriated to the consideration of piles, as the effects of stricture; and there are several cases of this nature detailed, which, in a satisfactory manner, point out the connexion existing between the two complaints, and which of course is of the utmost importance in the treatment.

Upon the whole, the work contains many sound remarks, and is creditable to the author, who evidently brings to the discussion of the subject no inconsiderable share of practical information.

Medico-Chirurgical Transactions, Vol. XIII. Part II. 1827. Longman and Co.

[*Concluded from page* 472.]

The possibility of the occurrence of complete dislocations of the vertebræ without fracture, has long been a disputed point among many of the first surgical writers. Boyer and Sir A. Cooper are of opinion, that such an accident cannot happen; and Delpech, in his Précis Elémentaire des Maladies reputées Chirurgicales, asserts, without qualification, that a careful examination of the form and situation of the bones, must convince the observer that such accidents cannot occur. The following case, however, related in an excellent paper by Mr. Lawrence, sets the question at rest:—

" Case.—Charles Butcher, twenty-two years old, was admitted into the hospital at five o'clock, p.m., January 8. He was completely insensible, incapable of voluntary motion below the neck. Had slipped in descending some steps, and fell on his buttocks, whilst carrying a heavy barrel on the back of his head and neck. Functions of the brain not disturbed; respiration apparently performed merely by the diaphragm; pulse weak and slow; body cold; penis in a state of permanent erection. No irregularity of the spinous processes could be discovered. In four or five hours pulse became full and strong, heat of body greater than natural, respiration rather hurried. Venesection to ℥xvi, a dose of calomel and jalap. Four ounces of urine drawn off by the catheter.

" Jan. 9. Pain at lower part of the neck. Can move the arms slightly, and has a little feeling in the front and upper part of the chest. Dark offensive stools pass involuntarily; respiration slower; pulse full; heat natural.

" 10. Feels better. Slept three or four hours in the night for about an hour each time, has experienced a trying sensation in the hands, and is sensible to impressions on the upper part of the arms and thighs; stools pass involuntarily; complains of distention of the bladder; eighteen ounces of high-coloured urine were drawn off, and deposited a dark brown sediment. The priapism continues. Four ounces of urine drawn off in the evening.

" 11. Has not slept during the night, and is worse this morning. Respiration becomes more difficult, so that speaking requires a painful effort; countenance expresses distress and anxiety. He expired at one o'clock on the morning of the 12th.

"*Examination.*—No displacement nor irregularity could be discovered by external examination, when the body was laid on the face. After cutting away the muscles from the back of the spine, the cartilaginous surfaces of the superior articular processes of the fifth cervical vertebra came into view; they were exposed in consequence of the inferior processes of the fourth vertebra having been *completely dislocated forwards*, and remaining fixed in their unnatural position. The yellow ligaments connecting the laminæ of the two vertebræ were torn through, and the biped apex of the fourth spinous process lay in close contact with the basis of the fifth. On the front of the column an unusual projection was observed, but the anterior longitudinal ligamentous expansion was entire. *The body of the fourth was completely detached from that of the fifth vertebra*, the connecting fibro-cartilage being torn through, and *the body of the former projecting by its whole depth in front of the latter.* * * * "

It is not the least curious part of this interesting case, that no deformity in the bones of the spine could be discovered by external examination. Mr. Lawrence also states, " that, on a cursory view of the patient, there was nothing alarming in his situation." These facts, connected as they are with the great extent of injury which the vertebral column had sustained, ought to act as a warning to practitioners against giving a hasty and inconsiderate diagnosis or prognosis in accidents of the vertebræ.

Dislocation of the Atlas and Axis from Disease, with consequent Anchylosis.—A very remarkable example of this description is related by Mr. Lawrence.

"CASE.—A child, at the age of *seven*, became the subject of an illness, supposed to be hydrocephalus. A swelling formed in the side of the neck of some magnitude, and obviously containing fluid. Pressure on this swelling affected the brain, producing coma; at length the tumour disappeared. During the progress of the complaint there was no interruption or diminution of sensation or voluntary motion, and the recovery of health and activity was complete. There was nothing particular to attract notice in the position of the head. The child died of disease in the lumbar vertebra, at the age of *twelve*.

"*Examination.*—The head was examined during the hottest part of last summer, and the brain had become so soft, that the changes produced in it by disease could not be ascertained. Mr. Wigan brought to me the basis of the skull, in which we were surprised at observing a considerable bony prominence standing up in the right side and front of the foramen magnum. The projection in question was smoothly covered by the dura mater, and it was soon apparent that it must be the dentiform process of the second vertebra. When the soft parts had been completly removed by maceration, I found an extensive displacement of the occiput, atlas, and axis, and a firm consolidation of these bones in their new relative positions by the complete bony anchylosis of several articulations. The atlas is partially dislocated towards the left, and at the same time thrown a little forward and upward; hence the right and posterior part of its bony ring intercepts a considerable portion of the spinal canal. The middle anterior protuberance now corresponds to the left side of the basilar process; the extremity of the left transverse process projects three quarters of an inch beyond those of the two following vertebræ, while the right transverse processes of those vertebræ project one quarter of an inch beyond the corresponding one of the atlas. * * * * The axis is completely dislocated from the atlas and occiput to the right, so that its left portion intercepts about one-third of the spinal canal, and the dentiform process projects by its whole length into the cavity of the skull, at the anterior part of the foramen magnum, close to the right anterior condyloid foramen. In the natural position of the parts, the apex of this process is a little below the level of the occipito-atlantal articulation; here it is an inch above the same level, while its projection into the cavity of the skull is between five and six-eighths of an inch. The lateral displacement is no less extensive; the measurement from the left anterior condyloid foramen to the middle of the basis of the dentiform process being seven-eighths of an inch, while the distance from the right foramen to the same point is only two-eighths. * * * * The bodies of the second and third vertebræ are displaced towards the right, so that a line drawn along their middle and continued upwards would strike the right margin of the basilary process; and the small tubercle on the anterior arch of the atlas corresponds to the left side of those bodies. The right occipital condyle, the remains of the right transverse of the atlas, the inferior articular plane of the axis, and the right side of the basis of the dentiform process, are anchylosed, so as to form one solid bony mass. The left occipital condyle is partially anchylosed with the atlas; the left articular plane of the axis, its transverse process, and that of the third vertebra, are all consolidated with the partial anchylosis just mentioned. The articular processes of the axis and the third vertebra are anchylosed, the union extending on the left side, as far as the bases of the spinous processes. The bodies of the axis and third vertebra are not anchylosed.

"The preternatural bony connexions, just enumerated, are perfect, equalling in solidity the natural bony structure, so that the limits of the anchylosed bones are confounded. The bony texture is quite natural; there is no roughness of surface, no diminution of solidity, nor any appearance of caries. The dimensions of the vertebral canal, at its commencement, are greatly reduced by the extensive displacement of the atlas and axis. The antero-posterior diameter of the foramen magnum is, in this case, one inch and a half; the greatest measurement, from side to side, is one inch and a quarter. The diameter of the ring of the third vertebra, from side to side, is seven-eighths of an inch, from front to back six-eighths. The measurement of the canal, between the displaced portions of the atlas and axis, is half an inch from before backwards, and five-eighths of an inch from side to side."

Mr. Lawrence observes, that "the history and examination of this case clearly show, that the opinion originally entertained of its being hydrocephalus was altogether erroneous, that the primary disease was an affection of the articulation, the fluctuating tumour in the neck being a chronic abscess consequent on that affection, while the spontaneous disappearance of the tumour is referrible to the cessation of the irritation which caused it. The swelling bore the same relation to the vertebral disease, that lumbar abscess does to disease in the lumbar region of the spine.

Mr. Lawrence has noticed several curious facts connected with this extraordinary case, the most remarkable of which may probably be found, in the circumstance of there having been no inconvenience experienced by the patient from the pressure of the dentiform process of the second vertebra, on the under surface of the medulla oblongata. That it occurred in a gradual manner there can be no doubt; still, when we take into account the length of the projection, and the importance of the part on which it intruded, the absence of both pain and paralysis is another fact in proof of the extraordinary accommodating principle with which life is endowed. A still more extraordinary case of anchylosis than the foregoing, is mentioned by Sandifort, in his *Museum Anatomicum*, in which the occiput, all the cervical, and the two upper dorsal vertebræ are firmly consolidated, the head being strongly twisted to the right, so that the left side of the alveolar arch corresponds to the middle of the bodies of the vertebræ. The parts anchylosed in this remarkable specimen, are the occipital condyles, and front of the foramen magnum, to the atlas; the latter to the dentiform process, that process to the occiput; the articular processes, and the laminæ of all the enumerated vertebræ. The bodies of the vertebræ were still connected by their fibro-cartilages. Instances of disease in the upper cervical vertebræ, although seldom noticed by English surgical writers, are, as Mr. Lawrence correctly observes, by no means uncommon. Of the continental authors, Professor Rust has probably given the best account of the disease, having met with no less than thirteen cases, in all of which the symptoms were nearly alike.

- - - - - - "Pain in the neck, becoming more severe at night, or in swallowing a large mouthful, or drawing a deep breath, is the first symptom. This pain affects one side of the neck, especially when the head is moved towards the shoulder; it extends from the larynx towards the nape, and often to the scapula of the pained side. No external alteration is perceptible, but firm pressure on the region of the first and second vertebræ produces considerable pain, and thus points out the seat of disease. The difficulty of swallowing and breathing, and hoarseness, increased, alternating with pain in the neck, which seems to fix about the back of the head, and becomes intolerable on moving that part. The head sinks towards one shoulder, the face being turned a little down, for, in general, the articulations are affected on one side only, and that was the left in seven out of nine examinations after death. If both sides are affected, the head will incline directly forwards. In this state things continue for several weeks or months, and before worse symptoms come on, there is often apparent improvement, freer motion, and more natural situation of the head. But the uneasiness in speaking and swallowing returns, the pain becomes more severe and extensive, the head falls a little backwards, and sinks towards the opposite side. The patient feels as if the head were too heavy, and he carefully supports it with his hands, when he moves from the sitting to the lying position, and *vice versa*. This may be considered a pathognomonic symptom of the affection. Another symptom which, at this period, shows the true nature of the disease, is a peculiar expression of pain in the countenance, which, combined with the position and stiffness of the head, constitutes so characteristic an assemblage of appearances, that it is enough to have seen it once, in order to recognise it again immediately. More active indications of severe suffering are observed, whenever the head is moved. In the further progress of the case, noise in the head, deafness, giddiness, cramps and convulsions; partial paralysis, particularly of the upper limbs, loss of voice, purulent expectoration, and hectic symptoms, supervene. Generally, no external change is observable, either in the neck or in the nape; and Rust observed, in one case only, swelling of the affected side, which broke and left fistulous ulcers. But the slightest pressure in the region of the three upper vertebræ, is acutely painful; and sometimes, in the advanced period of the disease, a grating of rough surfaces is distinctly perceptible when the head is turned. The patient may continue for months in this helpless and painful state, and then dies either from exhaustion, or, which is more frequent, suddenly and unexpectedly."

Such is the account given by Rust of this appalling disease, and in the accuracy of which, Mr. Lawrence appears fully to concur; the latter gentleman observes, that

> "The principles of treatment applicable to these cases in the commencement and during the process of disease, are the same which guide our conduct when disease is seated in other parts of the vertebral column. The immediate vicinity of so many important organs, renders it a matter of great consequence to lessen the degree and extent of inflammation, and thus to limit the disorder in its early stage, to the parts first attacked. The local abstraction of blood, with the other parts of the antiphlogistic plan, and perfect rest of the affected bones, should be persevered in until all symptoms of active mischief are removed. Counter-irritation in its various shapes, and more particularly by moxa, seton, and issue, will contribute essentially to assist the subsequent restorative process."

In the propriety of these directions, all practitioners of experience will readily acquiesce; but as persons of a scrofulous diathesis are most commonly the victims of these formidable affections of the vertebræ, it may be well to suggest the propriety of confining the antiphlogistic treatment to the first stage of the disorder, and in such habits, even up to this period, local is in all cases preferable to general depletion. Quietude cannot be too strictly enforced.

The two succeeding papers are by Mr. Lawrence, and Mr. White of the Westminster Hospital, on the treatment of *nævi materni*. It is the object of these Gentlemen to show, in the removal of such affections, the superiority of ligature over that of the knife. With this view, they have given a brief account of nine cases thus treated, eight of which were completely successful. In the ninth case, a small portion of the nævus, which was not included in the ligature, grew rapidly, after the other portion had completely sloughed; and at the time the paper went to press, Mr. Lawrence remarks, that it is doubtful whether another operation will not be necessary for the removal of the renewed growth. The method of applying a ligature in these cases, was, to pass

> "A large curved needle, containing it, under the middle of its (the tumour's) basis, carrying the point of the needle in and out again, close to the edge of the base of the swelling. When the needle had been cut out, the two ends of the ligature, which had been left of equal length, formed two distinct ligatures, one of which was then tied on each side, as tightly as it could be drawn, just in the line of distinction between the tumour and the skin."

In small nævi, or in those which have small pedicles, it is probably unnecessary to pass a needle under the base of the tumour, or to apply a double ligature, although, in those swellings, correctly denominated by Mr. Wardrop, subcutaneous nævi, both precautions probably are desirable. For the effectual strangulation of the blood contained in large tumours, the double ligature is decidedly necessary, as it gives a much greater command over the parts, and compresses the vessels with much more powerful effect.

> "The ligatures (says Mr. Lawrence) must be drawn very tightly, and ought, therefore, to be so strong, as to bear the utmost force we can employ with the finger and thumbs, without breaking—stout silk twist will answer the purpose; but we should observe the precaution of trying its strength previously."

In the majority of the foregoing cases, the ligatures were removed at the end of forty-eight hours with perfect safety, affording immediate ease to the patient. In one instance, Mr. Lawrence removed one of the ligatures "at the end of twenty-four hours, when the whole tumour became instantly distended with blood, regaining its original size and purple colour;" wherefore Mr. Lawrence properly recommends "that they should not be removed until about forty-eight hours have expired after their application." When the slough has been removed, poultices applied to the wound were usually sufficient to accomplish the healing of the cavity and complete the cure.

Two cases of nævus on the face, successfully treated by Mr. Wardrop with the *kali purum*, are related in The Lancet, Vol. XI. page 653.

Dr. Elliotson has related several cases of chronic diarrhœa, (many of which have been already reported in this Journal, (successfully treated with sulphate of copper and opium. The dose in which these medicines were usually given, was from half a grain to two grains of the former, combined with from half a grain to a grain and a half of the latter twice a day, allowing at the same time a milk diet, arrow root, beef tea, sago, and a little wine. When the abdomen was very tender or painful, the application of a blister was deemed necessary. In the last case mentioned, the disease had been of four years standing; stools ten a day, and bloody; ordered a grain each of the sulphate and opium, twice a day. In a short time the salt was increased to a grain and a half three times a day. In a fortnight, the stools were reduced to two or three in the twenty-four hours, the dose of the sulphate being augmented to two grains and a half, conjoined with a grain and a half of opium; the motions rapidly regained their natural frequency and consistence, and the man was discharged cured. Three grains of the sulphate three times a day, is the largest quantity Dr. Elliotson has prescribed; but this he has given frequently. As it has a tendency to produce vomiting and griping, he invariably combined it with opium, a grain and a half of which he always found quite sufficient to prevent three grains of the sulphate from griping, even in the slightest degree.

Mr. Wallace, of the Charitable Infirmary, Dublin, has communicated a paper on what he calls "*Fungous Eruption.*" The following is his description of the disease:

"A number of tumours, some about the diameter and elevation of a filbert, others as large as a small walnut. On an accurate examination, they were observed to be crusted, or covered, with a yellow brown scab, and to be surrounded, to the extent of about two lines, by an areola of livid-coloured skin, which was rough, in consequence of desquamation of its cuticle. On removing the scab or crust, it was found to form a covering or cap to a fungus or excrescence, of a pale dirty pink colour, having but little sensibility when handled, and exactly resembling in figure a small mulberry or raspberry. There were also on many parts of the surface of the skin, marks or stains of a rounded form and livid colour, of the same diameter in general as the fungi, scarcely elevated above the surrounding skin, wrinkled, and in some situations with the cuticle covering their surface in a state of perforation."

A patient thus affected was speedily cured by taking ten grains of the blue pill every night, until his mouth became sore. Infants at the breast were cured, as in syphilis, by giving mercury to the mother. Mr. Carmichael, in his work on the venereal disease, has alluded to a somewhat similar affection, which he cured by administering pitch pills. As it has never fallen under our notice practically, we can say nothing of the complaint. Since the paper was first written, Mr. Wallace has met with some cases, which induce him to believe that the disease is infectious.

Mr. Langstaff describes several preparations in his museum, with a view to prove the possibility of ossific union of fractures of the neck of the thigh-bone, within the capsular ligament, a fact, we conceive, incontrovertibly established by the preparation forwarded to the London Medical Society, last winter, by Mr. Chorley, of Leeds, an accurate description of which, was long ago published in this Journal. Nevertheless, great credit is due to Mr. Langstaff, for the industry he has displayed; and still greater credit is due to Mr. Amesbury, for his improved method of treating these accidents.

There are three or four other papers, but as they contain no information of practical importance, which has not been long known to the profession, we must refrain from making any further extracts, having already exceeded the limits we had allotted to a consideration of this work.

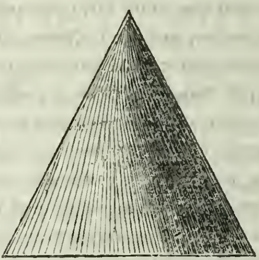
A TRIFLING ERROR.

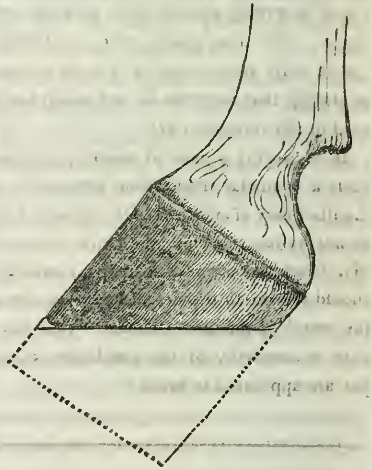
BY PROFESSOR COLEMAN.

" The hoof is always conical."—Prof. Coleman's Book, 1802.

" I cannot see that the hoof is a cylinder. The hoof is a cone."—Prof. Coleman's Lectures, 1828.

" In describing this part of the hoof (the wall), we have, in compliance with first impressions, and customary habit, considered it as conical. It would not be right to quit this subject without observing, that this notion is by no means correct ; much use in handling the hoof has taught us otherwise, though we have been cautious in stating it at once, for it is our wish to make these remarks intelligible to every class of readers ; so that we studiously avoid the use of the technical phraseology of the art, so equally we would desire to avoid the use of terms belonging to other sciences, that are not in use in these arts. There appears, however, no other source of communicating our ideas, than by sacrificing our wishes in this respect ; for the sciences are so interwoven, that they cannot be understood sometimes but by each other's aid, and to leave incorrect ideas would be more culpable than such a step. The figure of this part of the horse's hoof, then, is truly a cylinder, very obliquely truncated ; its truncated extremity brought to the ground. To show this distinctly, I exhibited formerly, in some discourses I gave on this subject, a cylinder of brown paper, and this I cut obliquely till it gave the figure of the hoof of any slope in front ; so that at a distance it could not be known from the actual hoof. It is also readily seen by placing one limb of a carpenter's square beneath the foot across the quarters, then sloping the other limb backwards against the quarter, parallel to the front, when the edge of the iron would be found parallel to the side of the hoof. In many feet there is, however, a very small spread downwards, but less than could be imagined from a transient view of the foot. This understood, will lead the sculptor and veterinarian to a more just conception of the figure of this part : it is, indeed, its cylindrical form that causes the back line of the hoof at the heels to slope in the same course as the front line of the toe.''—Vide Mr. B. Clark's work on the Foot and Shoeing, p. 20.





The Reader will recognise at a glance the extraordinary aptitude and felicity of Mr. Clark's illustration, and also the Professor's glaring ignorance, in giving it a conical form. The fibres of the hoof, it may be observed, are running parallel from the coronet to the base: now there can be no parallel lines in a cone; they must diverge from a point, otherwise it is no cone at all.

To obtain a knowledge of such an organ as the horse's foot, it is of importance, and even of necessity, that we should have a correct notion of its general figure; and it is not too much to say, on looking at the diagrams, that any man who can entertain the idea that the hoof is a cone, or any part of one, can have no true knowledge of its real structure; and such is, unfortunately, the case with Mr. Coleman. But it is not of the mistake only that we complain, it was an universal one until Mr. Clark published his discoveries; and Mr. Coleman, no doubt, received this error with many others, when he stepped from the medical profession to the veterinary chair, and quitted the pestle and mortar for the hammer and pincers; but why, when fifteen years ago its cylindrical form was made manifest, does he continue to teach the pupils that the hoof is a cone, and even sturdily assert that Mr. Clark is wrong, against such palpable evidence? We must admit, that the Professor is fully borne out by his own case, in stating that surgeons do not always succeed in the veterinary art.

Is it worthy a man of science, to reject such a beautiful illustration, because it is the discovery of another? Or, rather, does he not refuse to admit the truth of one of Mr. Clark's doctrines, lest the remainder should follow, to the defeat and rejection of his own? Professor Coleman, your conduct is unworthy of the gentlemen whom you are appointed to teach!

WESTMINSTER MEDICAL SOCIETY.

5th January, 1828.

Dr. Robert Lee commenced the business of the evening by reading to the society a communication "on the best method of accomplishing delivery in presentations of the superior extremities, where turning is unadvisable or impracticable."

He stated in a very clear and forcible manner the fatal effects which often result from long-continued and violent efforts to turn, where the liquor amnii has been evacuated for many hours, and the uterus has been contracting strongly around the body of the child. In four cases which he related, where blood-letting and opium had failed to control the inordinate contractions of the uterus, and where rupture or dangerous contusion of the soft parts of the mother were obviously threatened by a continuance of the labour, he delivered by extracting the child double, as in spontaneous evolution of the fœtus. This manner of accomplishing delivery in these cases, he particularly described, and represented as both easier and safer than that of separating the head from the body, as lately recommended by Dr. D. Davis in his Elements of Operative Midwifery.

Dr. Lee, in conclusion, begged to caution the members of the Society from supposing that he wished to abandon the common operation of turning, wherever a reasonable hope existed of saving the child's life and that of the mother.

In the discussion which ensued, Mr. Jewell, Dr. Barry, Mr. Mackelcan, severally spoke, but nothing material transpired.

Mr. Mackelcan then read an essay on mediate auscultation, showing the applicability of this diagnostic means to various diseases.

Mr. Bennett and other members were *pro*, and Dr. Gregory, with Dr. A. T. Thomson, were *contra*. The discussion will be renewed at the next meeting.

WRIST-DROP OF PAINTERS.

To the Editor of The Lancet.

Sir,—As I am informed that I did not make myself perfectly understood by some gentlemen, at the last meeting of the Westminster Medical Society, I beg to add the following explanation of an invention referred to in the debate of Saturday evening; and, if you deem it worthy of a place in your widely-circulated Journal, it will contribute to make the invention known not only to the members of the profession, but to those who are still more interested than medical men in its general adoption.

Mr. Woodman, of Piccadilly, has taken out a patent for a painting brush, having a reservoir *at the upper end*, which, when filled with paint, acts as a *counterpoise* to that which is held suspended or entangled among the hairs at its inferior extremity.

The utility of this contrivance will be felt by workmen in making the up-stroke with the exterior muscles of the hand, as is always done.

A house painter having been at work some hours with the common brush, experiences what is technically called the wrist-drop, through fatigue, and I conceive that the repeated occurrence of this distressing circumstance lays the foundation of that more permanent falling of the hand to which painters are liable.

It will also in some degree account for the return of the complaint after it has been relieved by medical treatment.

On this ground I think Mr. Woodman's invention one of considerable importance, for by throwing the weight of the paint to the upper extremity of the brush, *its gravity is made to assist the muscles of the fore-arm in drawing the alternate stroke upwards*: thus tending in the first instance to prevent exhaustion of their powers, and, in other cases, concurring with the use of medicine and other means, to their lasting recovery, whether their state, so like palsy, depends on mere fatigue, or arises from the deleterious properties of lead.

I am, Sir,
Your very obedient servant,
N. Bingham.
Piccadilly, Dec. 24, 1827.

MUSCULAR CONTRACTION CURED BY MOXA.

To the Editor of The Lancet.

Sir,—Should you agree with me in considering the following case of sufficient interest to the medical world, I shall feel obliged by the insertion of it in your valuable publication as early as possible.

I have the honour to be, Sir,
Your most obedient servant,
Patrick Macintyre.
Bury St. Edmunds, January 3, 1828.

Whilst on a visit to a friend in the summer of 1819, Miss P—— sustained a violent fall on a gravel walk, and received a cut across the inner side of the carpus, just over the annular ligament. The wound was not properly attended to at first, and in a few days it became inflamed and irritable. Soon after it was healed, the fingers began to contract spasmodically, and shooting pains were felt along the course of the nerves of the arm. The wrist likewise became bent inwards. The affection gradually progressed in this way for several months; the muscular rigidity becoming (if nosologists will allow the latitude I assume to the following terms) actually *tetanic*; and the neuralgia bearing close affinity to the exacerbations of *tic douloureux*. The arm shrank, and lost all sense of touch. Friction, stimulating embrocations, repeated blisters, &c. were respectively resorted to at this time, ineffectually. No diminution of the pain was obtained, and as little relaxation of the muscular rigidity, in so far as I have been made to understand.

Three years after the accident, the young lady sought the advice of those *clarissimi viri* in surgery, Sir Astley Cooper and Mr. Cline. The former recommended a splint and roller to keep the fingers and wrist extended. Mr. Cline advised hot salt water fomentations. Neither gave very flattering hopes of relief. Mr. Cline s remedy, which I believe was first tried for some time, seemed to be beneficial; under its application the fingers became moveable, though weak and almost useless. The painful affection of the nerves was little, if at all relieved. It ought to be stated here, that previously to this partial recovery, Miss P. experienced a fright, to which she mainly attributed the restoration of voluntary power. Be that as it may, the relief was but temporary. In a few months the fingers and wrist inclined to their former bent position. The fomentations were continued ineffectually. Sir Astley Cooper's plan was then resorted to, and continued for nearly a twelvemonth; but the difficulty of extending the hand and wrist being very great, and no ease or relaxation being obtained, that too was abandoned.

In June last I was consulted. The phalanges were contracted and doubled up close, and the carpus was twisted and drawn in upon the forearm. It was with great difficulty and excruciating pain to the patient, that the work of extension was accomplished. There was no possibility of keeping the fingers extended with a single splint and roller. The fingers soon clinched together, or burst the roller by the violence of the spasmodic action. Double splints were at this time of little more use. I soon began to agree with my patient and others who saw the case, that little was to be expected from the mere mechanical violence of extension; indeed I was convinced, that under such circumstances, as in displaced fractures, violence would rather frustrate than further relaxation. The *ratio symptomatum* was, however, here, as in all cases of the sort, sufficiently obscure; and the question requiring solution appeared to me to be, to *which* affection should I first turn my attention? If relief were afforded to the *neuralgies*, would that under the circumstances—the long standing of the case especially considered—assist in the removal of the rigidity, or *vice versa*? The MOXA had been used successfully in separate muscular and neuralgic affections, and I resolved to try its efficacy in this double case.

The moxa was accordingly applied in the usual and now generally understood form, over the carpus and along the forearm, every second or third day. Sometimes it was held near and long enough to produce vesications and subsequent ulcerations, which were washed with a solution of sulphate of copper; but for the most part these effects were avoided. After six weeks' continuance of this mysterious agent, the violence of the pain sensibly subsided; and the periodical attacks (for, like tetanus, the pain was periodical, although at last, the periods of ease were "few and far between") became less frequent. The antagonist (extensor) muscles, whose power had been so long subdued, now exercised some influence. In two months the fingers were moveable, and sensible to the touch. The pain commensurably decreased, and now allowed sleep in the night, which had for a long time been a stranger to the unfortunate and suffering young lady. By a steady perseverence in the moxa, she began to *use* her fingers in a month more; and, at the expiration of the fourth month, could use her needle, and knife and fork. The splint and roller, which were recommenced when the contracting muscles became more pliant, have been discarded for the last six weeks. Miss P. has been from under my care for about a month, and I understand is daily gaining strength in the hand and arm, the latter of which is now of the same calibre as its fellow. The pain is entirely gone. I ought perhaps to mention, in justice to another mysterious agent, that after the phalanges became flexible, and when the spasmodic pains supervened with violence, which they frequently did, the insertion of an acupuncture needle always produced instantaneous relief. The moxa, however, was always sufficient to produce the same favourable effect.

ST. BARTHOLOMEW'S HOSPITAL.

STRANGULATED EXOMPHALOS IN THE EIGHTH MONTH OF PREGNANCY.

ELIZABETH WRIGHT, æt. 31, was admitted into this Hospital on the first of October, 1827. She is a thin woman, has borne seven children, and is now in the 7th or 8th month of her eighth pregnancy. She states that there has been a swelling at the navel from her infancy, and that she has always worn a bandage till her present pregnancy. During her former pregnancies, the part has invariably swelled and become painful between the fourth and fifth month; purgatives have always removed these symptoms until the present occasion, when they entirely failed. On Sunday, Sept. 30, she was attacked with severe pain in the umbilical region, and with vomiting, for which she took pills and castor oil without relief. At the time of her admission there was a a large irregular soft swelling at the umbilicus, about two inches in diameter, not very tender, and being obviously a rupture, containing principally omentum. The abdomen was neither tense nor painful; the pulse was frequent and hard, the woman was thirsty and feverish, and she vomited occasionally. Castor oil was given, and rejected; injections were administered, and returned unmixed with fæculent matter; 30 leeches were applied to the abdomen, and the taxis tried ineffectually. Mr. Lawrence, who saw the patient at this time, found the swelling very soft, and free from pain, and the abdomen nearly in the same state. Had these points been alone considered, strangulation would not have been suspected; however, the constipation and vomiting showed that the course of the intestinal contents was obstructed, and a portion of intestine might easily be concealed under the soft mass of omentum composing the bulk of the swelling. Mr. Lawrence, therefore, determined to operate immediately, considering the state of pregnancy rather as an additional reason for, than as an objection to, the operation. When the sac had been laid open by a perpendicular incision, carried over the middle of the tumour, a large portion of omentum and a small portion of discoloured intestine were exposed to view. The intestine being returned, and a part of the omentum removed, one or two small arteries were tied, and the wound was brought together with sutures and adhesive straps; her bowels were moved four or five times after the operation, and she slept at intervals during the night. Towards the morning she complained of pain in the umbilical region; there was a little inflammation around the wound, which occasioned tenderness of the parts. The tongue was coated, and the pulse full and frequent; venesection to sixteen ounces; twenty leeches to the abdomen; a drachm of sulphate of magnesia in mint water every three hours.

Oct. 3. She passed a restless night, and is more feverish to-day. Venesection to sixteen ounces; twenty leeches to the abdomen; a drachm of Epsom salt, in the effervescing draught, every three hours; bread poultice to the wound, which appears healthy.

4. She slept better, and is less feverish; the bowels are open, and the tongue clean and moist; pulse 112, and rather sharp. The wound is nearly healed, except at the upper part. Repeat the bleeding to fourteen ounces; continue the draught.

8. She has improved in every respect during the last few days; the tongue is clean, and the pulse slow and soft. This morning a small abscess was opened, which had formed upon the tumour, and discharged a considerable quantity of healthy pus.

19. She continues improving, but complains of weakness. Meat diet.

26. A truss was ordered for her this day, and she left the Hospital soon afterwards.

GUY'S HOSPITAL.

REMOVAL OF THE BREAST, BY MR. CALLAWAY.

Mr. Callaway removed the breast of a female on Tuesday sennight, in consequence of carcinomatous disease. The particulars of the case were, briefly, as follow:

The patient was 44 years of age, of fair complexion, and enbonpoint; a married woman, but had never borne any children. Her general health had always been good, and the menstrual discharge regular, until within the last nine months. Five years ago she received a blow on the left breast, which occasioned considerable inflammation, and in consequence leeches were applied; the part however got well, and she experienced no inconvenience till about three quarters of a year previously to her admission. At this time she discovered a hard swelling in the left breast, which gradually increased and became very painful.

When admitted there was a hard flattened tumour, occupying the site of the left mammary gland, of about the size of a goose's egg, irregular or tuberculated on its surface, and slightly adherent to the parts beneath. Dividing the tumour into three parts by supposed transverse lines, the nipple might be said to have been placed at the commencement of the lower third; it was very much retracted, and the skin to some extent around was puckered.

The nipple became retracted about three months after the appearance of the tumour, which commenced just above the nipple, on the inner side.

The operation itself consisted simply in dissecting out the diseased mass; two oblique elliptical incisions were made through the skin; the upper apices of these incisions being towards the axilla. It was found, after the whole substance of the mammary gland had been taken away, that there was some disease existing immediately above the breast, and two hardened portions were removed from this part, apparently diseased absorbent glands. We omitted to remark there was no axillary glandular enlargement. The subclavian artery was compressed, and in consequence but little blood was lost in the operation, which was performed with great dexterity and coolness.

FISTULA IN ANO, WITH STICTURE OF THE RECTUM, SUCCESSFULLY TREATED BY AN OPERATION.

A. Davis, ætat. 31, was admitted under the care of Mr. Morgan, on account of fistulous disease, with obstruction, in the rectum.

The account which she gave was that several years previous to admission an abscess formed near to the anus, which, after discharging a considerable time, at length terminated in a small fistulous opening, and remained in a chronic state for a very long time. Subsequently to the formation of the fistula she experienced difficulty in passing her fæces, and the obstruction went on gradually increasing until at length the motions were flattened, figured, and not in larger pieces than a leech.

On examination, Mr. Morgan found a small fistulous opening on the side of, and near to, the anus, communicating with the rectum, *above* an annular stricture which existed at about two inches and a half up the intestine.

The treatment employed consisted in passing a bistoury up the fistulous opening, meeting its point in the gut *above* the stricture with the finger, then drawing the instrument downwards, and thus cutting through the stricture, at the same time dividing the gut and sphincter.

There was very little hæmorrhage succeeding the operation; the wound was dressed with lint, which was renewed from day to day, until at length it was filled with granulations, and thus a perfect cure established.

The patient left the Hospital, about six weeks after admission, quite well; she was detained for some time by a smart attack of erysipelas affecting the head.

ERRATA.

Page 538, for "epistoles," read *epistolis*.

Page 542, for "*dint de domicile*," read *droit de domicile*.

At this festive season, printers have a prescriptive privilege for committing more blunders than usual.

THE LANCET.

Vol. I.] LONDON, SATURDAY, JANUARY 19. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

LECTURE XV.

Flooding Cases.

Where, Gentlemen, the discharge of blood occurring before or during parturition is in small quantity only, it may be regarded with little apprehension, being perhaps rather favourable to the patient than otherwise, because it tends to relax the softer parts. It too often happens, however, that instead of these smaller eruptions we have the blood breaking from the uterus in large abundance, to the amount of two or three pints, for example; when, dangerous in a high degree, it requires in the different cases a treatment various in its modification, but essentially the same in all; and hence it is that we have thrown together in one class all those cases in which the blood is largely bursting from the uterus, considering them under the general appellation of floodings, a title at once interesting and familiar to every obstetric.

In the earlier months of pregnancy, when the blood is coming away largely from the uterus, the discharge may be produced by the detachment of any part of the ovum from the uterine surface; for in these earlier months, say in the second and third, the vessels of the uterus shooting in large number into every part of the ovum, no part of the ovum can become separated from the uterus without rupture of vessel and consequent hæmorrhage. Again, in the latter end of gestation, say the seventh, eighth, or ninth months, the vessels still push into the ovum on all sides, but those which are pushing into the membranous part of the involucra, are few and small, and if torn, discharge but sparingly; while the vessels which pass reciprocally from the placenta to the uterus, are very numerous and very capacious; hence it happens that flooding to a great extent must take place when these vessels become torn open in consequence of a disjunction of the placenta and uterus from each other.

In flooding cases, the quantity of blood which passes away varies exceedingly, amounting in some instances to a few ounces only, in others to a few pints, or quarts, perhaps I might add gallons. And this variation in the measure of the discharge, arises principally from the following causes, operating separately or in combination: I mean the age of the pregnancy, the extent of the separation, and the duration of the process. On the age of the pregnancy much depends, and you may lay it down as an axiom, generally though not universally true, that the floodings of the latter months are more copious than those of earlier gestation. For when the blood flows away in the earlier months, it flows from a uterus of small size and from small vessels; in which, therefore, there is much less blood than we find in the same organ at a more advanced period of gestation; while those floodings which break forth in the latter months make their attack when the uterus is thoroughly enlarged, with all its vessels numerous and capacious, and plentifully filled with blood. Hence it holds, as a sort of general prognostic, that while all the floodings in the later period are attended with much danger, those which occur in the earlier months, provided the woman enjoy an ordinary share of health, are seldom destructive to life, though the general health may sometimes suffer severely. Again. When the ovum separates from the uterus, the quantity of the hæmorrhage may be determined, in part, by the extent of the detachment. Thus, even in the earlier months, if the ovum separate extensively, a copious bleeding may occur, while a sparing bleeding may take place, even in the end of gestation, provided the detachment of the placenta from the uterus be of small extent, not exceeding two or three square inches, for example. Nor is it to be forgotten that there is much variety in the duration of these floodings, the discharge in some cases recurring for weeks together, while in other cases the whole attack is comprised within the compass of a few, two or three days, for example, or even of two or three hours. And hence a third cause, giving rise to variety in the quantity of blood discharged; for where the process is short, the discharge of blood of course is of short continuance, and may too be very sparing; but when the floodings are protracted for days or weeks together, half a pint escaping on one occasion, a pint on another, a quart perhaps on a third, it is obvious that the total quantity of blood lost may soon exceed even a gallon.

So here then are three leading causes, to the joint or separate operation of which the quantity of bleeding may be attributed; —the age of the pregnancy, the extent of the detachment, and the duration of the process.

We frequently observe with satisfaction in flooding cases, that after a certain quantity of blood has been discharged, where the patient is judiciously managed, or where she is left to her own resources, that unless she act very imprudently, the hæmorrhage ceases either permanently, or at least for a time. Now, noticing this, the inquisitive mind may be led to inquire, (and not without reason) what is the cause of this permanent or temporary stoppage of the bleeding? because the knowledge of such a cause may perhaps enable us to co-operate with nature more effectually when using remedial means. On this point, therefore, I next proceed to remark. When blood flows from the uterus, the discharge seems to be arrested in part here, much in the same manner as it is suppressed in other structures of the body, where dissolution of continuity has taken place; by faintness, I mean, and the formation of clot. The current of the blood slackens; the quantity which in a given time is transmitted through the uterus, diminishes; the concretions which form over or within the mouth of the bleeding vessels, the flow of the blood being languid, are less liable to be pushed away; add to which, that the experiments of a very excellent experimental physiologist, Mr. Thackrah, of Leeds, having confirmed the opinion, that when the body is fainty, the blood becomes more prone to concretion; this approach to deliquium it is evident does not merely diminish the risk of a detachment of the coagula, but effectually facilitates their formation. Among the causes, therefore, which first suppress the bleedings from the uterus, you may enumerate the fainty condition produced by the hæmorrhage. A woman losing two or three pints of blood, and being, perhaps, of hysterical diathesis, she becomes very fainty, and under this tendency to deliquium concretions form; under which, together with that closure of the vessels which is effected by the formation of that layer or coat of blood which lies over their orifices externally, little coagula are produced, which penetrate into their cavities, perhaps, to the depth of a line, and effectually close them on the principle of the plug. And hence in bleedings, whether from the uterus or from other parts of our structure, unless the patient be in danger of sinking into that state of asphyxia, or deep faintness, from which recovery is not to be expected, we ought by no means to be in haste to rouse them; that faintness which shakes to pieces the nerves of their friends, is in truth not their danger, but their security; and allow me to strengthen this remark by observing, that if bleeding be stopped, as it generally is in these cases, provided the patient possess the ordinary share of bodily vigour, however alarming the faintness may appear to the inexperienced, in general she recovers gradually and safely if left undisturbed. But to resume.

If in other parts of the body a wound be inflicted, in four-and-twenty, or in eight-and-forty hours afterwards; sometimes in a shorter period, provided the vessels laid open be not of a very large size, and the hæmorrhage do not proceed so as continually to interrupt the process, inflammation supervenes in the coats of the vessels, and this inflammation gives rise to a deposit of adhesive matter in the orifices of the vessels, which, becoming consolidated by organisation with the tunics of the vessels which enclose it renders the security of the obstruction complete. For a thorough development of this principle, we are indebted to the late Dr. Jones, a physiologist of great promise, hurried from us by an untimely death, at the very moment when he was beginning to rise gradually into well-merited distinction, and indulging the fair hope of enrolling his name in the glorious company of those creatures of intellect.

"Inventas aut qui vitam excoluêre per artes,
Quique sui memores alios fecêre merendo."

Now, it is a question whether in the uterus, similar in its vascular organisation to the other parts of the body, the same defensive inflammations may not also occur; and whether, after the hæmorrhagy has been temporarily restrained by clots and faintness, a more secure closure of the vessels may not be accomplished in the course of a few hours by the deposition of small plugs of adhesive matter, and an organised union of them to the sides of the bleeding vessels in the manner just described. That such adhesive inflammation takes place in the bleeding vessels of the uterus, has never been clearly demonstrated, though it appears not improbable; it seems the less certain, however; first, because it has never been demonstrated to the eye, and, secondly, because we find that a woman once bleeding from the uterus, there is always, if she stir about, a great disposition to a renewal of the discharge. Now, if by adhesive inflammation, all the vessels were shut up, as in other parts of the wounded body, it seems, on the whole, scarcely probable that the hæmorrhage should be so easily renewed. Among the means, therefore, of arresting bleedings, the closure of the vessels by phlogistic adhesions may be properly enumerated; but it must be admitted, in the present state of our knowledge, that its operation on *the womb* is uncertain.

Thus far the suppression of hæmorrhage from the uterus, bears a near reliance to the stoppage of bleedings from other parts of the body; but you ought to be aware, that eruptions of blood from the uterus may be restrained, more or less effectually, by the operation of a third cause, peculiar to gestation, and that cause is, the discharge of the liquor amnii. Even when that fleshy mass, the placenta, is lying over the mouth and neck of the uterus, the discharge of the liquor amnii, when practicable, might perhaps tend to diminish the hæmorrhage. But, however facts may hereafter dispose of this question, there seems to be little doubt, that if no portion of the placenta be lying upon the mouth of the uterus, the membranes alone covering it in the ordinary manner, the discharge of the waters will, in most cases, arrest the flooding, or so far diminish it, that it becomes no longer dangerous.

Peculiar to the uterus, there is yet a fourth means by which the bleedings may be arrested, and that is, the complete evacuation of the uterine cavity, effected by the spontaneous expulsion, or the artificial removal of the ovum, fœtus and secundines. The thorough contraction of the muscular fibres of the uterus, and, of consequence, the effectual constriction of the blood-vessels greatly diminish the risk of hæmorrhage, and in the earlier or later periods of gestation, when floodings occur, if the ovum be expelled, the uterus contracts itself, so as to become permanently round and firm, and hard like the head of a fœtus, in general further hæmorrhage ceases, and thenceforth the patient is secure.

How it is that discharge of the liquor amnii has the effect of diminishing and stopping the bleeding so effectually, I am not able satisfactorily to explain, though, I suppose, something may be attributed to the partial constriction of the vessels by the surrounding fibre, and something again to the pressure which the contracting uterus makes upon the placenta. After the liquor amnii is discharged, the uterus always contracts itself, and, indeed, expels the ovum within an uncertain period of one, two, or three days; so that the escape of the water is not only immediately effectual in checking the hæmorrhage, but ultimately brings the patient a still more certain security,—that, I mean, which is derived from the complete evacuation of the womb. When the ovum is away, we can more clearly understand how the stoppage of the hæmorrhage is effected. The uterus then decidedly contracts, the muscular fibres contract too, and, of course, necessarily cause a constriction of the uterine vessels, which are ramifying among the fibres. By the thorough contraction of the uterus, therefore, you insure, at the same time, a thorough contraction of the vessels, which, by the constriction of the muscular fibres round them, are closed as effectually as if they were secured by a set of ligatures, and compressed much in the same manner as the fingers of one hand are pressed upon the fingers of the other.

Here then are the four principal causes which, operating separately or in connexion, seem to stop the discharge of the uterine blood:—the formation of clots under faintness; the closure of the vessels by inflammation; the discharge of the liquor amnii; and the evacuation of the uterus. To this important topic I have given the more attention, because you never can scientifically assist nature in the stoppage of these floodings, unless you understand the mode in which she operates.

I shall now send you round some illustrative preparations. Here is one of the uterus, large as in the ninth month, injected and dried; two arteries, (the spermatic) supply the upper and middle regions; and two, the inferior uterine, the parts which lie below. All these vessels, you will observe, are of considerable capacity, large nearly as the goose quill; it is no way surprising, therefore, that bleedings so copious occur in the latter months. Another preparation I circulate, is a strong contrast to the former, consisting of a portion of the womb in the earlier months; you here see the vessels small as threads; from vessels like these, but little hæmorrhage may be expected. It is clear, therefore, why the bleedings of the earlier months are so sparing.—The preparation here shown, is formed from the human ovum, consisting of the cyst containing the fœtus and the liquor amnii, in connexion with the placenta: the water is within. When the membrane is ruptured, and the liquor amnii is discharged, the ovum becomes much diminished in its bulk, and the womb, therefore, in the earlier months especially, is enabled to contract itself considerably.—Here is a preparation of that part of the uterus to which the placenta coheres, the structure being uncontracted; here you may observe the blood-vessels, by unclosed orifices opening on the surface internally, very numerous and large, and with their patulous orifices yawning destruction on the patient; of some, the orifices are sufficiently large to admit a small goose quill. Such are the vessels laid open when in the end of pregnancy, the womb being uncontracted, the placenta becomes detached; look at these orifices, and you will no longer be surprised that, in the close of gestation, the blood is bursting from the womb, in such copious and dangerous abundance. Here, again, is a preparation, the counterpart of the former, consisting of a section of the uterus in the contracted state, the contraction being thoroughly effected; looking on the surface exposed by section, you will observe all the vessels of large capacity constricted, and closed up by the compression of the surrounding fibre; and such are the results of that complete contraction of the womb, which, as before observed, is obtained by the removal of the ovum. Think of these things.

Hæmorrhage from the uterus may suddenly destroy life; the after floodings more especially, under which patients sometimes die, and very unexpectedly. The woman is delivered with unusual facility; the placenta is removed, it may be, with more than ordinary care; the practitioner leaves the room, and is, perhaps, in another apartment, conversing with some of the family respecting the auspicious termination of the labour, when suddenly he is summoned to the chamber of the patient, where he finds her at the point of death. Repeatedly cases of this kind have occurred; generally, however, when the patient sinks in consequence of the loss of blood from the uterus, death steals on its victim in a more gradual manner; and there is, therefore, more opportunity for the use of those remedial means by which the bleeding may be checked, and the danger averted. Now where death, in this manner, makes an insidious approach, three or four hours may pass away before the respiration ceases, while there occurs a long train of symptoms to which I have been too often witness, and which may, I think, be divided advantageously into two classes,—those which may be looked upon as less alarming, and those more dangerous symptoms, which are to be regarded as the more *immediate precursors of dissolution.*

And first, then, we may observe, that when blood comes away in large quantities from the uterus, alarming symptoms soon begin to appear: the extremities become damp and chilly; the tongue, lip, and cheek pale and ghastly, the pulse frequent, (140, 50, or 60,) small and perhaps intermittent, disappearing in the wrist for a few seconds, or even for a few minutes, nay, for an hour or more, and then returning; and there is weariness and weight in the limbs, and fainting and sighing and vomiting, and cessation of the pains. Now all these symptoms you may throw together under the head of symptoms alarming in a high degree, but which are not to be looked upon as indications of immediate and almost certain dissolution.

When the patient is about to die in consequence of the blood she has lost, in addition to the preceding symptoms, which may have been precursory, the following also frequently occur: the whole body becomes damp and chilly; the very breath becoming cool, as you may feel sometimes by putting the back of the hand a little before the mouth; and the pulse intermits very much, or perhaps it is permanently imperceptible in the wrist, which it may be for minutes, aye, for half an hour, an hour, or even longer than this, before the dissolution takes place, and soon the patient becomes restless, and wishes to alter her posture, and no persuasions induce her to lie quiet; relief flies before her, she changes her position, and again she changes, but remains uneasy still; and now the irritability and exhaustive oppression continually augmenting, she gets at length into a state of involuntary jactitation, throwing her limbs about upon the bed, like the image on the table, and deep convulsive gasping sobs occur, (best illustrated dramatically by this imitation,) and these are speedily followed by a cessation of the cardiac and pulmonary actions. When respiration is once stopped, she is gone beyond the reach of any known remedy, under received methods of management—not even transfusion itself can save her;—a solemn pause follows, presently broken by ejaculations scarcely audible; some dear friend sobbing and in tears, exclaims, "Can you do nothing? Is there no hope?" What can you answer? "Nothing! None!" But if we could but have foreseen; if, instead of raising a senseless clamour against experiments and experimentors, we had only availed ourselves of the helps of physiology; if we had only supplied the necessary blood; if we had only transfused, (and how easily it might have been done!) at worst she could but have died. But now——"Why, madam, all those who have got well under the operation, as this case *clearly proves,* would have done just as well without it. Why, madam, all those who have been operated on, have been seized with a diffused erythematic phlogosis of the serous tunic of the cephalic median vein, preading to the basilic." "But is she really dead? Can you do nothing!"————

In flooding cases, (let me add further,) there are two ways in which the blood may be discharged, by *gushes,* I mean, or by *drain-*

ings. In the latter months of pregnancy, when the bleeding first comes on, the blood frequently rushes from the uterus by impetuous bursts, so that in a few seconds a pint or two may be lost; and this it is which constitutes the gushes. Then, after this gush, the hæmorrhage may cease altogether, or it may be converted into a slow oozing from the uterus, continuing more or less for hours together. And this latter kind of bleeding it is, this slow and sparing discharge from the uterus, in the course of a day or two, occasioning sometimes large losses of the vital fluid, which constitutes what are called drainings. Now the gushes are produced by the detachment of the placenta or ovum from the uterus, by which the vessels are immediately laid open, and the drainings seem to arise in part from the languor of the circulation, produced by faintness, and also in part from the formation of clots, which give only a partial closure to the vessels, so as not to put an entire stop to the bleeding, although at the same time they preclude the eruption of large quantities at once.

Treatment.—Having said thus much on the nature, effects, and spontaneous suppression of flooding generally, I will now, if you please, proceed to the consideration of the method of treatment, commencing with the management of the more sparing floodings, those especially of the earlier months; for example, the first three or four. If you are called to a patient in the earlier months of gestation, labouring under a small discharge of blood from the uterus, she will tell you, that she has a show, occurring, perhaps, spontaneously, or attributed, it may be, to some accident, a blow, a fall, a Christmas party, a long walk. Well, the discharge appearing in this manner, one of the first measures to be prescribed is a sort of *antiphlogistic regimen.* To the horizontal posture the patient should be confined, for days or weeks together, lying extended on the sofa, or the bed; the bed being enjoined in preference to the sofa, if the disposition be restless, as the woman is then less likely to rise occasionally and stir about. The chamber, if sultry and close, should be immediately cooled; stimuli should be forbidden, and especially port wine, a drink to which women when flooding are sometimes much addicted. They consider it to be nourishing and astringent,—half a bottle or more is sometimes taken in the course of the day: I might mention much larger quantities, but respect for the sex prevents me from hyperbolizing here. That port may be of use when cordials are required, I do not deny; wine, however, must be regulated by the medical attendant, and as a general beverage it is improper. Plain nourishment is requisite, particularly if the discharge have been rather copious. These are very important points of treatment.

Again. Called to a case in which the discharges from the uterus are sparing, you should always inquire diligently into the state of the bowels, not infrequently in these cases closed. On two accounts, moderate evacuation appears to be desirable; first, because by clearing out the bowels you will remove any irritants which might be lodging there, in the rectum especially; and, secondly, because in clearing the bowels, by this measure you cool the system, perhaps heated by febricula. Drastic purgatives, or even active laxatives, are highly improper; they may occasion the premature expulsion of the ovum. Manna, rhubarb, magnesia, Epsom salts, or castor oil, in small doses, may succeed very well. To calomel I am averse; on some bowels it acts roughly, and I have seen it apparently occasion miscarriage.

You will often find in these more sparing floodings, that there is a certain degree of fever; the surface is warm, the tongue is white, and the pulse is 100 or 110 in the minute,—in the nervous much more frequent. Now when this is observed, it will not be amiss to administer to your patient some *refrigerant* infusion of roses, for example, with the sulphuric acid and sulphate of magnesia, in small doses, more with a view to the refrigeration of the system, than the laxative operation on the bowels. Nitre also may be tried, a powerful refrigerant; if used as a placebo, in daily doses of fifteen grains only; if really employed with the view of obtaining its full effect, then in much larger quantities, say of one or two drachms in the twenty-four hours; the practitioner carefully watching the patient, so as to ascertain whether the nitre irritate the stomach or not. To mix nitre with infusion of roses is unchemical, as more or less decomposition ensues.

When a sparing hæmorrhage from the uterus is combined with *febricula,* the *digitalis* seems to be particularly appropriate, and there are some accoucheurs who are very partial to its use. In operative doses, Dr. Haighton had found it rather an unmanageable remedy. Dr. Hamilton seemed at one time to suppose, that in effective quantities it might destroy the child; whether this be so or not, I really cannot, from my own knowledge decide. Experiments on animals are wanted to illustrate the point. Burns, who has written so largely and so well on the subject of midwifery, has found the digitalis of great service. In the more obstinate bleedings, with febricula, on the very respectable authority of Burns, I would recommend the digitalis to your consideration, adding, that if you give it at all, you ought to give it in operative doses.

Now those doses you will find to vary exceedingly in different individuals, one requiring a much larger quantity than another. *Sixty drops* of the *tincture*, or *an ounce* or *an ounce and a half* of the infusion in the course of twenty-four hours, are moderately effective quantities; care must be taken, when these larger doses are given daily, that the patient be sedulously watched by a competent person. Purging,—dying sickness, a double quantity of urine, a pulse of long intervals, or of unequal intervals, or with intermissions, are singly, or in conjunction, the marks that digitalis is in action; if you find any one, or all of those effects taking place, the digitalis is to be immediately laid aside altogether, until you have an opportunity of knowing whether an accumulative action will occur or not; for every one knows, that when this medicine begins to act, it may continue for hours to operate, with a perpetually increasing force, till the patient's life is endangered. To start into the sedentary posture, and to move suddenly, are both dangerous when the digitalis is in action; so also are large evacuations from the bowels.

In cases of hæmorrhage from the uterus, whether of more copious or more sparing quantity, we are advised to make use of the oil of turpentine, a remedy which has received the approbation of Denman. Though not prepared by my own observations to assert its efficacy, yet, on trial, I have not found any effects which prohibit its employment, though it must be acknowledged, that it is sometimes rejected by vomiting. Afloat on water, it is very conveniently administered; in this condition, it is more likely to remain on the stomach, than when formed with egg, or other intermediates, into an emulsion—a form of turpentine odious to the stomach. The aptitudes of the stomach for retaining the oil are various. In other cases I have myself, occasionally, given the turpentine very largely, so as to satisfy myself, that though there are some individuals who, can scarcely bear one or two drachms of it in a day, there are some who, in the course of twenty-four hours, can take the larger quantities—three, or even four or five ounces, prior and smaller doses being increased gradually, and the effects on the chylopoietic, and other parts of the system, being sedulously watched. Used as a placebo, its doses must be small; but if given with a view to some decided effect, half an ounce, or an ounce, on an average, may be given in the twenty-four hours. If it remain on the stomach, it is well; if rejected repeatedly, it may be laid aside altogether, though you may sometimes reconcile the stomach to its reception by the use of the effervescing draught.

Among the remedies, in cases of more sparing bleedings from the uterus, bleeding by venesection, or otherwise, may be enumerated as one, and not the least important. Bleeding, I believe, where the patient is in a febricular state, and is lusty and plethoric, may be useful; and sometimes when we take away blood from the arm, whether from cause or coincidence, the bleeding from the uterus becomes stopped. It is right, however, to mention here, that though bleeding in the sparing floodings is advisable generally, yet, if used indiscriminately in all cases, it may destroy. It is, I think, obvious enough, on a little reflection, that you ought not to have recourse to the lancet in those cases where the patient has already lost a great deal of blood. If, in consequence of blood lost already, the limbs are cold, the pulse small and frequent, the cheek pale, the countenance ghastly, why should you bleed? And yet I have seen patients bled in such cases! What is the advantage that is to derived from venesection here? All the abatement of vascular action, derivable from an abstraction of blood, has been obtained already, in consequence of eruption of the vital fluid from the uterus.

Again. If, from the previous eruption of a large quantity of blood from the uterus, you have reason to fear that a future copious discharge may occur, it is unsafe to bleed. If the woman have lost much blood already, the advantages derivable from a diminution of the quantity of the circulating fluid, are as before observed, already secured. Besides, how do you know, after you have taken a pint or two from the arm, that another one or two pints may not flow from the uterus? And how do you know that those together, may not be sufficient to sink the patient? They are not, therefore, copious floodings, but sparing discharges, which justify the intervention of the lancet. It is generally improper to bleed largely in the latter months, because the vessels are large, and the blood, at this time, is liable to burst forth in copious abundance. When the placenta is lying over the mouth of the uterus, for reasons more fully explained hereafter, there can be no certain security, till the child and after-birth are away. In the latter months, therefore, when the placenta is lying over the uterine mouth, it is especially unwise to bleed. To preclude an eruption from the uterus, venesection can be of little use, and, indeed, when the woman is delivered, whether by turning or the natural efforts, the blood will always be forced to come more or less copiously away, and often in large abundance. Venesection, therefore, employ if you please, in your robust country patients, who have sparing discharges from the uterus, in the earlier and middle months; nay, it may be proper to repeat it then, but beware of bleeding where collapse is already begun, where large eruptions have taken place already—where the patient is advanced to the latter months of gestation, and where you have reason to believe that the placenta is lying over the mouth of the womb.

In cases of hæmorrhage from the uterus, of somewhat copious quantity, there is another remedy, perhaps too much neglected, and that is, *proper nourishment*. If a woman goes on losing a little blood every day, she at last sinks into a state of *inanition*, and in the end reaches such a level of depletion, that some three or four ounces of blood may make the difference between life and death. That fatal quantity, if nourishment have been neglected, may be wanting to her in the decisive moment; on the other hand, if she take plain and nourishing food, the supply to the vessels may be kept up. Plain sense, the wisest of mentors, will enable you in most cases to decide with judgment on this practice. If your patient, too full already, require bleeding from the arm, you bid her abstain from a nourishing diet; but, practising in a large town, like this metropolis, you may have under care women in a state of great inanition, and to whom it may be absolutely necessary that nourishing food should be given. When nourishing food is taken, there are two ways in which it may be administered, either in the *fluid* or in the *solid* form: broths, jellies, fish, fowl, or flesh. Now where the patient can take the *solid* food, I prefer it on two accounts; first, because if digested well in a given bulk, it contains more nourishment, and, secondly, because where women are weak, and lose much blood, they are apt to become very *flatulent*; in this flatulency there is no danger, but it is inconvenient. By fluid aliment, also, diarrhœa may be produced; and under inanition, the mucous membrane of the bowel is too apt to suffer, giving rise to fatal purging.

With respect to gastric astringents, that is, astringents to be taken into the stomach, on these I have little reliance; and by astringents, I do not mean the refrigerants before mentioned, as the sulphuric acid, for example; but astringent properly so called, catechu, kino alum, hæmatoxylum, and so on. Alum I have administered in the larger doses, though I have not known it productive of any very good effect. Not to appear negligent, these remedies you may try, but I would not have you rely on them to the exclusion of others more valuable: they are of excellent service after the battle is won.

Of faintness I have already given my opinion. If the deliquium be such that the woman is likely to sink into a state of asphyxia from which she will never recover, then of course you must do your whole endeavour to prevent it. It would be too much to assert, that under small discharges from the uterus, it is impossible that fatal asphyxia may occur; but such is the nature of our art, that we must practise, not on the anomaly, but the general principle; and on this principle it must be admitted, that the faintness from small bleedings is unattended with danger—is highly conducive to the cessation of the bleeding, and in the general, therefore, ought not to be artificially relieved. For once, even in floodings, a meddlesome midwifery is bad. Let the patient lie in peace upon the bed.

Of the more dangerous bleedings tomorrow.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXIII.

On Carbon, and its Combinations with Oxygen and Chlorine.

Gentlemen,—The next elementary substance on our list is *carbon*, a substance of great chemical importance, inasmuch as it is one of the principal elements of animal and vegetable matter, and plays an important part in chemical operation.

This substance, in its purest form, is known as the *diamond*, a gem which for a long time was considered peculiar to the continent of Asia; but about a hundred years ago it was discovered in Brazil, and since then, a considerable part of the diamonds met with in Europe are brought from America. It is always found, with only one or two exceptions, in alluvial soil, that is, soil which has manifestly resulted from the detritus of rivers and waters, containing, among other matters, particles of the diamond in the crystalline form, more or less perfect; and you may form a good idea of the general appearance of the diamond by a reference to the models now upon the table. In consequence of its extreme hardness, it is not rounded off by any of those operations which have reduced its neighbours and associates to a round figure; but it retains its original crystalline shape, and has a rough surface. Its primitive form is a regular octohedron, but it is met with in a great variety of secondary forms, which it is not our business to describe. It often happens that it presents as many as twelve, twenty-four, or forty-eight sides, and sometimes these are bounded by curvilinear edges, giving the diamond a spherical or spheroidal form. The colour of the diamond varies, but it is most esteemed when perfectly colourless; and those next in point of value, are such as have a ruby red, or firm green colour; but its value is much impaired when it is only slightly tinted, or of a pale smoky colour, or pale red or yellow. It is exceedingly hard, and is one of the hardest, if not the hardest substance in nature. Its specific gravity is 3.5, water being 1. Until about the middle of the fifteenth century, diamonds were usually collected and worn for ornamental purposes, in the state in which they were found in Nature, but afterwards it was found out, that by mechanical means new facets could be given to them, by rubbing two diamonds together, and then polishing the surfaces; and it is owing to this art of cutting diamonds, as it is called, discovered by a Dutchman in 1566, that they possess the beauty which we now see in them. There are two ways of cutting diamonds known, the one is the clear cut, and the other the rose cut; by the first the brilliant is produced, which is the most valuable, which presents a facet above and below, and the angles of the octohedron are gradually truncated in the way described by Mr. Jeffreys, and other writers. In the rose-cut diamond, there is only a series of triangular facets over the stone; it wants the beauty possessed by the brilliant, and has not the same play of colour. The difference in the value of diamonds are as the squares of their weights; but from the nature of the processes employed, the polished diamond has not half the weight of one in its rough state. The weight of a diamond is usually estimated in carats, 150 of which are equal to an ounce, each carat being about the weight of three grains. Here is a table taken from Mr. Jeffreys' work, showing you the value of diamonds, according to their weight; of course, as the weight increases, the value increases in an enormous ratio; but then again, the paucity of buyers causes the larger diamonds to be sold at a much cheaper rate than their absolute weight, as compared with the piece of the smaller ones, would furnish. Diamonds vary in size from the smallest particle up to a very considerable dimension. Among the largest, we may enumerate that described as belonging to the great Mogul; it is said to be half the size of a hen's egg, and to weigh 190 carats. It was found in the mines of Golconda. There is a diamond among the crown jewels of Russia, of about the size of a pigeon's egg, said to weigh 195 carats. It appears originally to have been the eye of a Brahminical idol, and to have been stolen by a French soldier, who pretended to have become a convert to that religion: he stole the eye of the idol, and ingeniously substituted a piece of glass in its place. It was purchased by Catherine, the empress of Russia, who gave 90,000*l*. for it, and an annuity of 4000*l*. during the life of the soldier. A very large diamond was some years ago brought from India by a gentleman called Pitt; it weighed 136 carats, and was estimated at 100,000*l*. It was called the Pitt diamond, and was eventually disposed of by lottery. There are two or three other celebrated diamonds on record, one called the Pigot diamond, is, or was until lately, in the possession of Messrs. Rundell and Bridge: there is also a large yellow diamond in the possession of the emperor of Austria, and a large green diamond among the crown jewels of France, cut in brilliant.

From the diamond, which is carbon in its pure or crystalline form, as we shall be able, by-and-by, to prove to you, we descend to other varieties of carbon, and among these may be first enumerated that variety of carbon which is obtained by the perfect, or rather the imperfect combustion of wood.

If you burn wood in close vessels, all the volatile substances which it contains are driven off, and a black, inodorous, tasteless, substance remains, which is *charcoal*, infusible and insoluble in water, varying, of course, in its qualities in these respects, according to the perfection of the process by which it has been obtained. The two modes usually employed for obtaining charcoal, are the distillation of wood in close vessels, and the piling it up in pieces of certain length, and setting them on fire, covering the exterior of the pile with turf in such a way, that the combustion may be stopped after the wood has reached a certain state of carbonization. [Mr. Brande then exhibited a table, showing the weight of charcoal obtained from 100 parts by weight of different kinds of wood.] I have mentioned insolubility in water, infusibility and tastelessness as the characters of charcoal, to which I may add that it is also a conductor of electricity. If burnt with an access of atmospheric air, it is converted into carbonic acid, but it is not acted upon by air or water in its common state. Among the properties of charcoal may be mentioned its power of destroying smell, taste, and colour; and as a proof of its possessing the first quality, if it be rubbed over putrid meat, the bad smell will be destroyed. If a piece of charcoal be thrown into putrid water, the putrid flavour is destroyed, and the water is rendered comparatively fresh. The sailors are aware of this fact, and when the water at sea is bad, are in the habit of throwing pieces of burnt biscuit into it to rectify it. Again, colour is materially influenced by charcoal, and, in numbers of instances, in a very singular way. There are numerous applications of this property of charcoal to useful purposes in the arts: if you take a dirty black syrup, such as molasses, and filter it through burnt charcoal, the colour will be removed. There are some properties in charcoal which appear to be mechanical rather than anything else; but, for the purpose just mentioned, the charcoal of animal matter appears to be the best. You may learn the influence of charcoal in destroying colour, by filtering a bottle of port wine through it; it will lose a great portion of its colour in the first filtration, and become tawney; and after repeating the process two or three times, you may destroy its colour altogether. It is a very hygrometric substance, and therefore absorbs air and moisture in considerable quantity; it therefore increases in weight, on exposure to air after burning. Then, again, it has been found, that charcoal is capable of combining with different quantities of the different gases, and that one volume of charcoal will absorb as much as 90 volumes of ammonia, 85 of muriatic acid, 35 of carbonic acid, and so on: it is said, too, that when exposed to a mixture of oxygen and hydrogen, it absorbs them, and that water is formed in its pores. Here is a table showing the increase of weight, which 100 parts of charcoal receive by exposure to air saturated with water; from which it will be seen, that its absorbing power varies according to the kind of wood from which the charcoal has been obtained. Charcoal is a bad conductor of heat when well burned, but it is a good conductor of electricity.

Now, in proceeding to examine the compounds of *carbon* and *oxygen*, I may state to you that it unites with oxygen in two proportions, forming an oxide and an acid; the first is called carbonic oxide, and the last carbonic acid, and you will find, in regard to their compounds, that they are obedient to the usual law of definite proportions already pointed out, and that the carbonic oxide contains exactly half the quantity of the oxygen of the carbonic acid: so that if we admit the carbonic oxide to be a compound of one proportional by weight of carbon, and one of oxygen, the carbonic acid will be composed of one and two.

In order to obtain the *carbonic oxide*, you will present some substance to the carbonic acid capable of abstracting half of its oxygen. If you heat carbonate of lime, or marble, it gives out carbonic acid; but if you heat it in contact with certain metals, as zinc or iron filings, the metal will absorb a certain quantity of its oxygen, and carbonic oxide will be given out. If you introduce into an iron bottle a mixture of carbonate of lime and zinc, and expose it to a red heat, there comes over from the bottle a quantity of carbonic oxide, mixed with some carbonic acid, from which the former may be freed by washing it with lime water, and then the carbonic oxide is nearly pure. The specific gravity of this gas is nearly that of common air, 100 cubic inches weighing 29.7, so that to air it is as 28 to 100, or thereabout, and to hydrogen as 14 to 1. Carbonic oxide seems to have been known to the earlier chemists, and was described by Dr. Priestley, and his contemporaries; they imagined that it contained hydrogen as one of its elements, but Mr. Cruikshank made a series of experiments, and found that it did not contain hydrogen. This may easily be shown, by burning it under a bell glass; the flame of carbonic oxide, which has a bluish tint, deposits, as you see, no moisture on the glass, which it would do if it contained hydrogen; and the only result of its combination with oxygen is carbonic acid. It is not absorbable by water, using that term in the way before pointed out; it extinguishes flame, as may be seen by passing a taper into it, but the gas itself takes fire and burns with a bluish flame, as you have remarked, and during this combustion carbonic acid is formed, the gas combining with the oxygen of the atmosphere. Although it will not sustain the combustion of a taper, it will support the combustion of potassium, if it be introduced into a jar of the gas at a high temperature, but not otherwise; and although the attraction of carbon for oxygen is very powerful, yet you will find that potassium has a still greater affinity for it; that potassa will be formed, and that carbon will be deposited in the spoon which contained the potassium. Carbonic oxide is one of those gases which will sustain a red heat without decomposition. The gas may be analysed by detonating it with oxygen, and from it we deduce the representative number of carbon; for if we suppose carbonic oxide to be a part oxide of carbon, and deduct 8 as the equivalent of the one proportional of the oxygen, we shall have six as the number of carbon; so that we conclude, that 14 is the representative of carbonic oxide. Then, supposing the carbon to be in a state of vapour, carbonic oxide would consist of one volume of carbon, and half a volume of oxygen 14, and carbonic acid would consist of one volume of the vapour of carbon six, and of one volume of oxygen, or two proportionals, by weight 16; so that the number of carbonic acid would be 22; because, by the admixture, there is a condensation of bulk; or, in other words, two volumes of oxygen with one volume of carbon to produce one volume of carbonic acid, and one volume of oxygen unites with two volumes of the vapour of carbon to produce two volumes of carbonic oxide.

If you mix *chlorine* and *carbonic oxide*, they will combine when exposed to heat; one volume of oxygen and one volume of carbonic oxide condensing to form one volume of what was called *phosgene gas*, but which we shall call *chloro-carbonic acid gas.* Owing to the condensation which it undergoes, it is a very heavy gas, 100 cubic inches weighing 1059 grains; to air it is as 3.51 to 1, and as hydrogen, as 50 to 1. It has a very peculiar smell, and it is found to combine with four volumes of ammonia to form a *chloro-carburic of ammonia*, which is not of any use, but interesting, as furnishing an instance of definite chemical combination.

We may now proceed to the next compound of carbon with oxygen, namely, *carbonic acid*; and before we go on to examine the mode of forming it, I will call your attention to its composition, as I am not exactly certain whether you understood what I have before said respecting it. It is composed of one volume of the vapour of carbon and of one of oxygen, but the volume of oxygen has suffered no change by its mixture with carbon; they condense so as to form one volume of carbonic acid; the oxygen, in dissolving the carbon, undergoes no change in volume; but 16 parts by weight of oxygen, unite with six parts by weight of carbon, to form 22 of carbonic acid. It is to air as about 15 to 10, or, more correctly speaking, as 1.544 to 1.000: its specific gravity is 46.6. So much, then, for its composition and specific gravity. It may be obtained by the combustion of carbon in oxygen; and then we shall show you, that if we burn the diamond in oxygen, we shall obtain precisely the same results; and this is the main experiment which serves to show, that the diamond and carbon are identical in their composition, first demonstrated by Lavoisier. If you take a common piece of charcoal and burn it in oxygen, it will merely glow, and will not produce the beautiful and vivid scintillations furnished by the piece now in a state of combustion before you, which is charcoal containing a part of the bark of the tree. After the charcoal has burned out, we shall find that the gas in the jar is no longer capable of supporting the combustion of carbonaceous bodies, so that if a taper be introduced into it, it will be extinguished.

There are several tests by which you may recognise the presence of carbonic acid, but the most common and effectual is lime water; and if on experimenting on any gaseous body, you find that the lime water becomes turbid as it absorbs the gas, you may generally infer that carbonic acid is present.

Now with regard to the combustion of the diamond; for a long time this was considered impossible; but about the year 1699, the Florentine academicians heated a diamond in the focus of a burning lens and they found that it exhibited a blue flame, that it diminished in weight, and that it gradually burned away. This experiment, however, did not attract much notice until about 1772, when the attempt was repeated by Lavoisier. He introduced a piece of diamond into a vessel containing pure oxygen, and directed the sun's rays upon it by using a double convex lens, and succeeded in burning it. He found that during the combustion the oxygen became converted into carbonic acid, and that the increase in weight which the gas sustained was precisely equal to the loss of the weight in the diamond. This experiment has been since repeatedly confirmed by Mr. Tennant, and more recently by Messrs. Allen and Pepys, which seems to show us, very satisfactorily, that the diamond is nothing more nor less than a carbon in a crystallized form. It is rather difficult to burn the diamond in consequence of the very high temperature required, and some other circumstances; but I shall endeavour to show you that the diamond may be burned by a very simple process, namely, by plunging it when heated into an atmosphere of oxygen gas; you observe that it goes on burning in the oxygen, which oxygen is standing over lime water. We shall find that the lime water will become turbid, precisely in the same way as if we had been burning charcoal in the jar, instead of a piece of diamond.

FOREIGN DEPARTMENT.

BONES OF BIRDS.

The bones of birds, in so far as their air cells are concerned, form two distinct systems, the one being filled with air through the trachea and lungs, the other immediately from the mouth and nose. To the latter the bones of the head, to the former those of the trunk, of the neck, and extremities belong. With very little practice one may tell, in a bone fully developed, whether it contains air cells or not, from the mere external appearance, without at all seeing the opening through which the air enters. Such bones, in addition to their being devoid of marrow, are generally of a clearer white colour than those filled with marrow. Frequently the external walls of the air bones are so thin that their internal cells may be very well seen. Nevertheless, mere external appearances may deceive, and in order to prevent this the openings leading to the air cells should be sought for. These openings are in general, as their connexion with the lungs or air tubes renders necessary, situated in concealed parts, and the extremities of bones. This circumstance, coupled with their smallness, makes their discovery so difficult, that in many cases not only the cleaning of the skeleton and the separation of the bones from all their connexions, but also the minutest examination of their surface, is necessary to discover their existence. In long bones the openings to the air cells are generally situated close to either extremity. In bones which exist in pairs there is commonly only one, or where several exist they are so close together as to be nearly united. The direction in which the openings penetrate the bony parietes is not uniform. Sometimes it is oblique, so that a short oblique canal is formed; at others there is an oblique groove, with a sieve-like base for the entrance of the air. The edges of the openings are even, smooth, and rounded, which gives them a peculiarly regular appearance. Their shape is either circular, oval, or elliptical. Their breadth bears some kind of proportion to the size of the bone, or at least to the extent of the internal cells, so that large birds, and large bones, have much larger openings than the small ones. There are, however, very remarkable exceptions. With respect to the internal air cells, great differences exist. There has been found in the internal periosteum which lines the air cells, in the bones of the upper and lower extremities, a fine net-work of blood-vessels. It is known that the air bones in young birds are filled with marrow, which becomes gradually absorbed to make room for the admission of air. This gradual expansion of the air cells, and absorption of the marrow, can no where be observed so well as in young tame geese, when killed at different periods of the autumn and winter. The limits of the air cells may be clearly seen from without by the transparency of the bony parietes. From week to week the air cells increase in size, till towards the close of the season the air bones become transparent. In all these bones the marrow first disappears from the vicinity of the opening which admits the air, and continues longest at the joints further removed from this opening. Towards the close of the summer and beginning of autumn, although in external appearance the young goose resembles the parent, no trace of air cells can be discovered in its bones, the interior of the bones being then filled with marrow. About the fifth or sixth month the marrow begins to disappear. This circumstance, which applies also to other birds, shows with what caution one should form an opinion, from young birds only, on the size of the air cells. In many kinds of birds, the air cells of some bones are never fully developed, although they have the openings in the bones which lead to the air cells. The obvious use of this construction on the bones of birds, appears to be that of lessening the weight of bone as compared with its size, without at the same time diminishing their necessary peripherical extent.—Whether birds possess the power of voluntarily letting out the air, so as to render them specifically lighter, or whether they contain lighter gases in them, has not been determined.

VARICOSE STATE OF THE VEINS OF THE ROUND LIGAMENTS OF THE UTERUS.

M. Cruveilhier recently observed in a female subject, brought into the dissecting room, two tumours, which at first presented all the appearance of inguinal herniæ, but on cutting down on them, he found that the swelling on each side was produced by a varicose state of the veins of the round ligaments of the uterus. The lower extremities were œdematous, and their veins varicose; there was also a cancerous state of the vagina.

WESTMINSTER MEDICAL SOCIETY.

12th January, 1828.

Mr. Arnott in the Chair.

There was a full attendance of members this evening.

Mr. Mackelcan commenced the discussion, by briefly recapitulating the observations which he made at the last meeting, in favour of the use of the stethoscope.

Mr. Alcock, Dr. Barry, Dr. Somerville, and other members, pointed out very clearly and forcibly the advantages resulting from this diagnostic auxiliary. They argued, that up to the period at which this instrument was brought into use, the different diseases of the chest could not be discriminated—that pleuritis and pneumonia, chronic bronchitis, phthisis (and even hepatitis) were confounded with each other, the older nosologists and pathologists having laid down no distinguishing marks between these separate affections. Dr. Barry observed, that by the aid of the stethoscope, Laennec had reduced the diagnosis of diseases of the chest nearly to a certainty, that in the many hundred cases which this great pathologist had attended, he had only been mistaken in his diagnosis with respect to one or two cases.

Opposed to the use of the stethoscope, were Dr. Gregory and Mr. Hunt; the objections of the former were chiefly grounded on the fact, (as he asserted,) that there had been no diminution in the number of deaths from pulmonic diseases, since the employment of auscultation, as shown by the bills of mortality. Mr. Hunt asserted, that many who had used the stethoscope, had given erroneous opinions with respect to the nature of disease, and, therefore, he did not consider it a certain means of diagnosis.

[It really must be matter of amusement to our continental brethren, that at this time of day a medical society should meet in England, gravely to debate on the value of the stethoscope as a diagnostic means. It is a tolerable sample of John Bullish prejudice, not however without its parallel, for we read in Hume; that most men in England above the age of forty, rejected the discovery of the immortal Harvey. We do not know whether the historian intended to set down forty as the precise period at which a man's prejudice gets the better of his judgment.]

LONDON MEDICAL SOCIETY.

January 14.

Dr. **Haslam**, President, in the Chair.

Mr. **Septimus Wray**, exhibited to the society the brain and heart of a patient who had lately been under his care. He was a midde-aged man, a clown at one of the minor theatres, and when first seen by Mr. W. he laboured under a severe attack of pneumonia, from which he had completely recovered, when it became evident, upon close examination, that there was some cerebral disturbance. This in the beginning was denoted by a quick and hurried mode of speaking; at length he became delirious, had several epileptic fits, and died on the fourth or fifth day after the accession of the latter symptoms. There was at no period any complaint of pain in the head.

The appearances observed in the brain on dissection, Mr. Wray stated, were serous effusion to a considerable extent within the ventricles as well as beneath the tunica arachnoidea, and this membrane was opaque, and thickened generally.

The lungs were sound, but there was evidence of extensive disease having prevailed in a part where it was not the least surmised, namely, in the pericardium. The bag contained upwards of six ounces of bloody serum, and the opposing surfaces of the membrane were covered with minute red granulations; but very slight cohesion had taken place.

The practical deduction which Mr. Wray attempted to draw from this case was, that the substance of an organ might be affected with an intense degree of inflammation, and yet no pain exist in the part. He asserted, indeed, that such was the fact, with respect to inflammation of the substance of the liver, of the lungs, and of the brain; that it was only when the membranes of these parts were inflamed that pain was felt.

Dr. **Burne**, without denying the general position maintained by Mr. Wray, questioned how far it was proved by the case in question, and referred to the brain, as *now* exhibiting no decided proofs of inflammation. Dr. B. observed that the arachnoid tunic was frequently seen to be opaque, simply from effusion beneath; this of course differed greatly from the opacity induced by deposition on the membrane, and was readily detected by making a few punctures so as to allow the escape of the fluid, or by holding up the tunic for a short time, so that it might drain. Mr. **Tyrrell** seemed to be of opinion that there were no appearances of inflammation having prevailed in the brain, and ascribed the effusion to the anasarcous condition of the system at large, and stated as the result of his experience in the post mortem inspection of fatal cases of diseased heart, that a copious cerebral effusion was generally observed in such cases.

Mr. **Lambert** wished to know how Mr. Wray could reconcile his statement of pain being an invariable concomitant of membranous inflammation, with the fact that in the case before the society, an intense degree of inflammation had prevailed in a serous membrane, (the pericardium), and yet had not been detected or even suspected.

The discussion on this case having ended, Mr. **Searle**'s paper was next considered, the substance of which, as we stated on a former occasion, was an attempt to prove that the respiratory muscles are the principal agents in the expulsion of the fœtus; that the uterus in fact is almost passive. Mr. Searle had in his paper quoted Blumenbach as an authority in favour of his opinion; but it was distinctly shown by Mr. Lambert, that Blumenbach had expressly spoken of the action of the womb as mainly conducive to the expulsion of the fœtus; that he had regarded it as involuntary action, and treated of it under that head.

To Mr. Searle's observation, that he had failed in detecting muscular fibre in the womb, it was stated by Mr. **Waller**, that two distinct sets of muscular fibre were traceable, the one longitudinal and the other circular. Mr. Tyrrell, on the contrary, said, that the muscular fibre pursued no particular direction; it was, however, he remarked very clearly apparent in the impregnated womb.

Mr. **Proctor** and other members were opposed to Mr. Searle's opinion; indeed he had not a single supporter.

COUNTY ASYLUM.

To the Committee of Magistrates for building a Pauper Lunatic Asylum for the County of Middlesex.

Gentlemen.—The erection of a County Lunatic Asylum having been determined on, I cannot doubt that you, who have been appointed to carry it into execution, are actuated by a sincere desire to render the plan as perfect as possible, and worthy the metropolitan county of the British empire.

Under that impression, I beg leave, though with great deference, to submit to you some comments on the "Instructions and Suggestions" which you have issued, for the guidance of architects who may compete for the premiums you have fixed for the best designs.

I should be sorry to merit the reproach of impertinence or presumption in offering my opinions uninvited; but as the object you meditate is one of great public interest and importance, I conceive every one is free to animadvert on your views, declared in the "Instructions and Suggestions," who may be supposed, from studying the subject, to possess some knowledge of it.

Perhaps it may be proper to state, that since 1820, when I published some observations that testify I have not been inattentive to the subject in question, I have visited all the public asylums, except Norfolk, Lincoln, Exeter, and Cornwall; most of the best private asylums in England, some in Scotland; and that I have also visited those in Paris.

My sole object in these inspections was, to obtain information in a branch of the profession to which I have been for some years devoted.

Premising thus much, I shall observe, that,

First.—Twenty-five acres of ground are too confined a space for an Asylum for six hundred lunatics.

If there are to be as many yards for air and exercise as there are classes of patients proposed, the remaining ground will be insufficient to afford occupation for the male patients capable of manual labour. Besides, so large a building, even if placed in the centre of twenty-five acres, will abut so nearly on the adjoining ground, that it will be impossible to prevent communication from without, by signals and other means, with the patients, when at the windows. I assert this from practical experience.

Want of sufficient ground has been discovered to be an original oversight, attaching to almost every public Lunatic Asylum which has been built; especially at Wakefield, Lancaster, Lincoln, Nottingham, Liverpool, Manchester, York Retreat, and Glasgow; and additional land has consequently been purchased for most of them at an exorbitantly increased price.

There are many reasons why an ampler space should be allotted to a metropolitan than to a provincial Asylum, without reference to the number of patients to be at first accommodated. I will name two only:—first, the liability of the adjoining ground being built upon; and next, the possible necessity for successive additions to the building, from the rapid increase of population.

From the more immoral and idle habits of the inhabitants of a great city, and their general ignorance of such trades or manufactures as might, to a certain degree, be carried on by lunatics, greater difficulties will be encountered than in the country, to find such occupations for the patients as may be conducive to their health, and promote their recovery; and, at the same time, lighten the current expenses of their support.

Few insane persons will learn any handicraft; and, if operatives by professions, they can rarely be persuaded to work. Rewards will move some to exertion; others will voluntarily work; but compulsion in an asylum for lunatics is too dangerous an experiment, and will yield nothing. Hence a considerable number of lunatics in the aggregate make small returns for labour.

The occupations which the male lunatics are generally least reluctant to, are field labour and gardening. Out of so great a number as your Asylum will contain, surely it does not appear unreasonable to assume, that a much larger quantity of land than 25 acres may, under proper supervision, be kept in cultivation by the patients; and crops, above the house consumption, be produced for sale.

You propose a separate garden attached to each airing ground; but this will be quite superfluous, as there will be little danger in permitting patients, who are willing to labour and can be trusted, to intermingle in a general garden where all are to be occupied.

Second.—You calculate that there are nearly twice as many females as male pauper lunatics, in Middlesex. If this be correct, it is contrary to the fact in every other place of Europe (except Paris and Lyons), and in every county of England. In the Cork Asylum, from 1798 to 1817, 1370 lunatics were admitted; and the sexes were nearly equal. Every where else, the males constitute the majority of lunatics.

In 1819, the returns to parliament of the lunatics confined in private houses, public asylums, and gaols, proved that the males greatly exceeded the females. In the licensed houses in the county of Middlesex, the total of lunatics returned was 1591; of whom the males were 795, and the females 796. In Mr. Warburton's two houses at Bethnal-green, and in two others at Hoxton—in which four houses almost all the pauper lunatics were then confined—there were, collectively, 1263; of these 1591 lunatics, and of the 1263, the males were 647, and the females 616. The subsequent returns of lunatics to parliament have been too grossly defective to be quoted.

In the return made by Mr. Warburton (vide Parl. Report, 1827, page 63), from 1823 to 1826, 456 lunatics were admitted into the *White House*; of whom the males were 228, the females 226. In all the private houses in Middlesex, which receive both sexes, the males will be found more to preponderate.

I conclude, therefore, that the alleged surplus of female pauper lunatics must be sought for in the parish workhouses.

In several parishes, as Mary-le-bone, St. Giles, and other populous parishes, *within the town*, the proportion of two female to one male lunatic certainly obtains. Not, however, among the lunatics detained in the workhouses of these parishes, but among those which belong to them, and are maintained at Warburton's, Miles's, &c. In all these houses, I understand, the males exceed.

In respect to the relative proportions of the sexes, of the lunatics belonging to the out parishes, in Middlesex, there is a decided majority of males.

I am uninformed of the authority or source whence it is computed that the female pauper lunatics so greatly exceed the males. If it be derived from the "Analysis of the Returns of Pauper Lunatics," &c. which was published in the Newspapers, I fear the calculation has been made on erroneous data; for that statement abounds in numerous and palpable inaccuracies.

If a doubt still exist of the correctness of the Returns, the gentlemen who compose the Committee have minds too much enlightened to render it necessary for any one to point out the course to be pursued, before the present instructions are acted upon.

Third.—The classes you have established can never be strictly preserved. But, as this is a subject admitting of more discussion than a letter can easily convey, I will pass on to offer my regret, that epilepsy has not been embraced in the classification.

There are many strong reasons for separating maniacal epileptics from other lunatics.

A general opinion prevails, that this form of insanity is incurable; and hence less attention has been paid to such patients than, from experience in many foreign asylums, ought to be given to them.

In La Salpetrière, at Paris, they form a distinct class, to the number of 300; and although the proportion cured does not exceed one and a half per cent., yet by good management, being all women, their industry is turned to some account. Some of these patients are very ingenious, and are humanely allowed the privilege of disposing of a portion of their works for the benefit of their indigent families.

In the Royal Institution of La Charité, at Berlin, the epileptics are also kept separate; and much greater medical attention is paid to them. The consequence is, that a fourth part of those annually admitted are discharged cured.

If these cases do not receive medical aid in the early stage, they inevitably degenerate into incurable fatuity, and become very troublesome and burthensome to an asylum.

Fourth.—It is proposed, that a distinct Infirmary shall be allotted for each class of lunatics, viz. the dangerous, incurable, curable, convalescent, noisy, and wet. The same are to be provided for both sexes; consequently, twelve infirmaries will be established.

In an asylum where all the patients do not lodge in distinct cells—as is the case in La Salpetrière and Charenton, the two best Asylums in France, in most foreign asylums, and also in private houses in Middlesex, which receive a great number of lunatics—infirmaries are absolutely requisite. No County Lunatic Asylum, however, I believe, has an infirmary; and for this obvious reason—every patient who requires it has a separate cell; and when the patient is sick, or meets with an accident, that cell constitutes the best infirmary for him. If the cells should be considered too cold, a few of them might be so constructed, that the temperature, as well as ventilation, should be easily regulated.

The very extended classification which you contemplate, renders so many infirmaries the less necessary.

But, as you design to have several sleeping apartments or dormitories, capable each of holding six patients, who may be convalescent or quiescent, a moderate-sized infirmary for each sex of these patients, in case any of them should be ill, will be a judicious provision.

Wherever the site of a Lunatic Asylum is good, and the diet, accommodations, and management appropriate, the inmates are rarely visited by acute or contagious diseases. The complaints to which lunatics are most subject in British Public Asylums, are paralysis, chronic diarrhœa, incontinence of natural evacuations, &c.; and all these are much more easily attended to, and prove less offensive, when the patients are kept in separate cells, than when congregated in rooms or infirmaries.

Should the infirmaries be dispensed with, or only two be allotted, an immense space will be gained in the Asylum, and the expense of building them, and of employing many additional assistants or keepers, be saved.

In the Senavra, at Milan, an Asylum admirably conducted, and in which lately there were 220 male, and 209 female lunatics, there is a small comfortable room appropriated to each sex, to place patients in on their first admission, for two or three days, till the physician can decide in what class to fix them. In many cases, the form of the malady is sufficiently marked; but, as in many others, it is difficult to decide, and an error may aggravate the case; a similar arrangement in the plan of the Middlesex Asylum may perhaps meet your approbation.

There are minor points in the "Instructions," &c. which may elicit comment from practical professional men; and some upon which I could dilate, but I forbear from further remarks, as I am afraid mine are already too extended.

I have the honour to be, Gentlemen,
Your obedient humble servant,
G. M. Burrows, M.D.
10, Montague-street, Russell-square,
January 5, 1828.

Note.—I addressed a letter to the Committee, from which the above varies but little, about a month ago. In consequence, several gentlemen have applied to me for information relative to points on which I had commented in that letter. Having no reason for concealing its contents, I have, as a general answer to these inquiries, determined on publishing it.—G. M. B.

CORONER'S INQUEST.

Yesterday evening an inquisition was taken at the Marquis of Granby, Little Marylebone-street, Marylebone, before Tho. Stirling, Esq., coroner for Middlesex, on view of the body of James Smith, aged 43, whose death was said to have been occasioned by his taking a certain medicine, administered to him by a medical gentleman.

On the jury being sworn, they viewed the body of the deceased, after which the following evidence was adduced:—

Mary Ann Smith, a respectably-dressed young woman, being sworn, stated that the deceased, who was a baker by trade, was her brother; he lived at 32, Little Marylebone-street; witness resided with him. On Friday last he complained of a violent headach, and pain of the right side. On Saturday morning he became worse, and witness went for Mr. Heyderman, a surgeon, of North-street, Manchester-square, who thought it unnecessary to attend, and sent a powder, with directions that it should be taken in the evening in some barley-water or gruel. About seven o'clock on Friday evening witness mixed the powder in some water-gruel, and gave it to the deceased. About five minutes after the deceased took the powder he fell asleep. Witness did not disturb him till near 11 o'clock, when she attempted to rouse him, for the purpose of giving him some nourishment, but she could not wake him. About two o'clock, he started in his sleep, and the "death rattle" in his throat came on. Witness was much alarmed, and hurried off for doctor Heyderman, whom she told that her brother was dying, in consequence of the powder he had sent him the night previous, and begged his immediate attendance. Mr. Heyderman, however, said he thought it unnecessary to attend, and desired her to give the deceased plenty of barley-water. On witness's return she found the deceased much worse, and apparently on the eve of dissolution. She again sent the deceased's son for Mr. Heyderman, but he refused to attend. On her nephew's return, she sent him for Mr. Wells, a surgeon, of Welbeck-street, but before that gentleman could arrive the deceased had ceased to exist.

Coroner.—Was the deceased generally a healthy man?

Witness.—Yes, Sir; he had scarcely a day's illness in his life.

Juror.—How did he appear before he took the powder on the Sunday evening?

Witness.—He seemed rather unwell, but not alarmingly ill.

Coroner.—What message did the medical gentleman send back when you sent for him a second time?

Witness.—That he considered it useless to come, as he knew the deceased was dead.

Juror.—Did the deceased vomit after he took the powder on Sunday evening?

Witness.—He did not.

Juror.—Had Mr. Heyderman attended the deceased on any previous occasion?

Witness.—Yes, Sir, he had.

Coroner.—Was the deceased and Mr. Heyderman on friendly terms?

Witness.—Yes, Sir, they were.

Juror.—Was the powder which you gave to the deceased on the Sunday evening accompanied with directions as to how and when it was to be taken?

Witness.—Yes, Sir, it was labelled "To be taken in the evening, in barley-water."

John Smith, a youth, about 16 years old, and son of the deceased, was next examined.—He stated, that about half-past three o'clock on Monday morning last, he was directed by his aunt, the last witness, to go for Mr. Heyderman, as she considered that his father was dying; witness went immediately, and saw doctor Heyderman, whom he informed of the dangerous illness of the deceased, and begged his immediate attendance. Mr. Heyderman, however, said it would be no use to go, and desired witness to return and give his father plenty of milk. Witness again repeated that his father was in a dying state, and implored him to come, but in vain.

The Jury expressed their indignation at the unfeeling, unsurgeon-like conduct of Mr. Heyderman, and requested the Coroner to use his authority in causing Mr. Heyderman to come before them to account for his apparent extraordinary and unjustifiable conduct.

Mr. Stirling accordingly sent a message by the beadle to Mr. Heyderman to attend the inquiry.

The beadle returned in a few minutes, stating that Mr. Heyderman would not come forward without the Coroner sent him a sovereign for his trouble.

The Coroner now forwarded a peremptory note to him, which had the effect desired; on his entering the room, he laughed loudly at the Coroner and Jury, at the absurdity of calling an inquest on the deceased. Having been reluctantly sworn, he stated, that the deceased having applied to him for a cough and pain in the side, he sent him a powder on Saturday evening; between three and four o'clock in the morning (Monday) he was knocked up to attend the deceased, whom he was told was in a motionless state; from the nature of the disease he was labouring under, witness concluded that the sleep which he was described to be in was no more or less than the sleep of death, consequently he considered it useless to attend.

Coroner.—But the lad informed you that his father was not dead, but very ill?

Mr. Heyderman (laughing)—"Oh! but I knew he would soon die; besides, I was once robbed in going to a patient in the night time, and I'll take care that shall not occur a second time."

The Jury here again expressed their amazement and disgust at such conduct in a man professing himself a surgeon, and said they should require the body of the deceased to be opened before they decided as to their verdict, as the impression on their minds at present was, that the powder sent to the deceased by Mr. Heyderman was the cause of his death.

The Coroner said, that they could adjourn for a short time, till the operation was performed by the parish surgeon.

The Jury having expressed their wish so to do, adjourned accordingly; and having again assembled, the evidence of Mr. Frederick Goodyear, the surgeon of Marlebone Infirmary, was taken. He stated that he had opened the body of the deceased, and examined the stomach and intestines; the heart and right lobe of the lung was in some degree inflamed; the stomach was empty, with the exception of about an ounce of mucus, which was in a fœtid state, and consequently past analyzation; there were no appearances which would lead witness to say that the deceased died otherwise than a natural death.

Coroner.—*If any narcotic poison had entered the stomach, would it not have caused the deceased to vomit?*

Witness.—*Certainly it would.*

The Jury, after consulting about a quarter of an hour, returned a verdict "That the deceased died by the visitation of God."

The Jury expressed a wish that a vote of censure might be passed on Mr. Heyderman; but the Coroner said they had no such power.—*From the Times of Jan.* 12.

GUY'S HOSPITAL.

SINGULAR INSTANCE OF DOUBTFUL SEX.

THERE is at the present time in Guy's Hospital a striking illustration of the vagaries which Dame Nature occasionally plays, in the person of an HERMAPHRODITE, as it is vulgarly called, or rather, of an individual who has such a remarkable mal-conformation of the genital organs, that it has really puzzled the *cognoscenti* to decide to which sex this being appertains. This EPICENE is about five feet four inches in height; has the dress and habiliments of a female; is 20 years of age, and has been brought up as a woman. The features are feminine, and there is a softness of expression in the countenance that proclaims the woman; indeed this person would pass in the world under the ordinary and very comprehensive phrase of a "good looking" girl.

The neck and chest are those of a female; there are no mammæ, but the nipples are large, and surrounded with a dark areola of considerable extent. Passing downwards to the abdomen, we have here one characteristic of the male, namely, that the hair passes in a strait line from the pubes nearly to the navel. It is in the genitals, however, that the most extraordinary circumstances are to be observed.

First, we observe that there is a very large portion of hair growing about these parts; we see the external labia of a woman, very much enlarged, and upon feeling them we find in each an oblong body of about the size of a chesnut, firm to the feel, and particularly distinct and moveable on the right side.

Protruding between the upper part of the labia is a body of the thickness of a moderate-sized finger, and of about an inch and half or two inches in length, exactly resembling the male penis in appearance, but that it has no orifice. There is a glans, with a prepuce, that may be drawn over it; it is, however, in the natural situation of the clitoris, and it has no corpus spongiosum. Beneath this penis, or clitoris, or whatever it may be considered, we find the meatus urinarius of the female; we see also the rudiments of the nymphæ, or internal labia—merely, plicæ.

The vagina is only of about three-quarters of an inch in length, and terminates in a *cul de sac*.

The pelvis is expanded, and we consider it to resemble that of a female; the thighs are brawny, and so far masculine; but the knees incline inwards, as in the well-formed woman.

With respect to the passions of the being, they may truly be said to be [negative: *it* does not feel an amorous inclination towards either sex, but remarked, when closely questioned, that "*of the two!*" a man would be preferred. The understanding seems to be of an ordinary stamp; the head is tolerably well proportioned. There seems to be a lack of that noblest attribute of woman—modesty; there is no hesitation at showing the parts from shame, except that now the frequent applications have become tiresome and fatiguing.

The object of this individual in coming to the Hospital, it is supposed, was with a view of obtaining some relief to the malformation. *He*, *she*, or *it*, however, stated, that the general health was suffering, and attributed it to the want of the menstrual discharge, which we scarcely need say has never appeared. There is said to be some indications of this at certain periods, but this does not appear to be clearly ascertained.

There has been a great number of visitors to this case; amongst others, Dr. Blundell, Sir Astley Cooper, Dr. Babington, and Mr. Travers. We believe that it is the opinion of Dr. Blundell, after a most attentive and rigorous investigation, that *there is no womb*. It has been questioned whether the bodies within the labia are ovaries or testes, some who maintain the latter opinion assert, that they can distinctly feel the chords; there certainly is some chord-like attachment, but we cannot aver that it is the spermatic chord of the male.

THE LANCET.

London, Saturday, January 19, 1828.

Controversies are generally acrimonious in proportion as the subject of disputation is inexplicable, or as the difference between the opinions of the disputants is trifling and immaterial. Men never hate each other more cordially than when they disagree about some speculative point, which to dispassionate observers appears wholly indifferent, or upon some subject which lies entirely beyond the reach of their understanding. The rancour of theological controversialists is proverbial; indeed there is no class of disputants in whom the virtues of meekness and moderation are worse exemplified than that of Divines. Time was, when a Homoousian, or believer in the homogeneous nature of the Trinity, if he could fairly catch and roast a Homooisian, or one who believed only in the homoigeneous nature of the Trinity, thought he was offering a grateful sacrifice to his Maker. It depended only on the vowel, or the diphthong, whether one Christian should embrace or ignite another. When men attempt to reason in the dark, it is not surprising that they should knock their heads together, and that the collision of these hard bodies should produce mutual exasperation; but we cannot so easily account for the acrimony which too often charscterises the discussion of scientific subjects. Differences of opinion in matters of faith are seldom reconciled, because there is no common measure of the subject of disputation; one man's faith can swallow a whale, while another's is scarce equal to the deglutition of a sprat. But in matters of science there is a common measure of truth by which differences of opinion may be accurately adjusted. In the sciences of quantity and number this common measure is demonstration, with respect to which all men *must* agree. In other sciences, observation and experience are the common measure of truth, with respect to which also, if there be no error in the premises, the conclusions of all men must agree. There may be an apparent discrepancy between the observation and experience of different individuals with respect to the same facts and phenomena, because men are apt to refer different conclusions drawn from erroneous premises to actual differences in the phenomena observed. This apparent discrepancy is only to be reconciled by calm, dispassionate, philosophical investigation. Why the angry passions of men should be excited in discussing questions, not of faith or speculation, but of science and of fact, would, if there were no other causes to account for the intervention of such passions, be somewhat inexplicable.

We have been led into these reflections by the tone and temper of the attacks made upon Mr. Lawrence during the controversy to which his paper on the treatment of erysipelas has recently given rise. There has been some diversity in the style of these attacks, as for example the pompous inanity of Travers is distinguishable from the flippant garrulity of Guthrie, but there is a marvellous conformity in the spirit of acrimony by which they are characterised.—How much of this spirit is referrible to a difference of opinion as to the treatment of a disease, and what portion of it is to be ascribed to the jealousy and hatred felt towards an individual, we will not now stop to inquire. Certain it is that the *Bats* and and Corruptionists do view Mr. Lawrence with jealousy and hatred; jealousy, because they feel themselves cast into the shade by his superior talents and attainments; and hatred, because they know him to be the enemy of the corrupt system to which they are indebted for their unmerited elevation, and the firm uncompromising friend of the great body of medical practitioners, whose degradation is the tenure by which that unmerited elevation is maintained.

The part which Dr. Butter has taken in this controversy is sufficiently ludicrous. He accuses Mr. Lawrence of neglecting to read any portion of his book on *Irritative Fever*, and *also* of appropriating without acknowledgment the most valuable portion of its contents. Mr. Lawrence has pleasantly observed, that Dr. Butter is as vain of his authorship as a beauty is of her person, and as ready to resent any apparent insensibility to his attractions. The parallel might have been carried farther, for when Mr. Lawrence is accused of rifling the charms which were vainly proffered for his enjoyment, it is evident that this is nothing but a repetition of the old expedient, which neglected beauties have resorted to in cases of extreme insensibility, from Phædra and Pharaoh's wife down to Lady Booby and Dr. Butter.

We turn from Dr. Butter to a highly respectable but not very temperate antagonist of Mr. Lawrence—Mr. Cooper; and we do so, chiefly for the purpose of noticing a passage in his last letter, on which we promised to make some further observations. Mr. Cooper says, he is aware there are many members of the profession who would not only disdain to become writers for The Lancet, but who decline to read its pages. Now, it is clear, from Mr. Cooper's subsequent explanation, that he entertains the same opinion as ourselves as to the character of the individuals to whom he alludes. In fact, the ambiguity in this passage, arises partly from the use of the words "writers *for* a public journal," in a sense which they are not usually supposed to imply, and partly from the misapplication of the word "disdain," where he evidently meant only to ascribe to the individuals in question the affectation of scorn. Disdain can no more be said to enter the feelings of the Bats and Corruptionists who hate and fear The Lancet, than it can be predicated of offenders who hate and dread the tribunal by which their conduct and character are investigated. Disdain implies a conviction of the weakness of an adversary; the Bats and Corruptionists hate and dread THE LANCET for its strength. Is it disdain which Mr. TRAVERS feels towards the instrument which has enabled the public to contrast *his* skill as a lithotomist with that of his colleague Mr. GREEN, who, out of forty cases of stone, which he has operated upon at St. Thomas's Hospital, has not lost a single patient? Mr. GREEN, like his colleague, did all he could to crush the rising freedom of the medical press; but if we hesitated on that account to acknowledge his decided superiority to his colleague, we should indeed deserve the scorn, which neither he nor any other member of the profession ever felt for the press when smarting under its severest animadversions. When Sir ASTLEY COOPER, in a silly speech at a public dinner, talked of the "reptile press," does any one believe that the worthy Baronet, whose extra-professional attainments are of the humblest description, really felt disdain for that mighty engine whose justly-administered praise had so often mantled his cheeks with pleasure, but whose salutary chastisement he bore with the petulance of a spoiled child? With respect to any imputations which may be cast on the character of our Journal, the best answer to them is the estimation in which THE LANCET is held by the profession and the public, and the declining state, we might almost say the annihilation, of our imbecile and corrupt contemporaries.

What has become of the old journals, which once, we will not say flourished, but at any rate subsisted, under the influence of the Bats? What has become of the old organs of darkness and corruption? Are they not all dead or dying? Some despicable imitations of THE LANCET have arisen, flickered for a while, stunk, and become extinguished before the profession or the public were aware of their existence. One or two are *still* emitting a little fœtor, but are fast hastening towards dissolution, which shall not be retarded by any notice of ours. RODERICK MACLEOD's Yellow Fungus has branched into a weekly Yellow Excrescence, and Dr. JAMES JOHNSON's Quarterly is dead. The Doctor announces his intention of publishing something once a fortnight; insinuates that his farrago, though appearing twice a month, will nevertheless be the identical old quarterly, and continues to insist, like LORD PETER, that his crust is excellent mutton. As a quarterly journalist' however, the Doctor is clearly defunct upon his own showing, and this *post-mortem* fortnight's farrago is as unjustifiable a resuscitation as that of the player who rose to speak an epilogue after he had been slain by a thrust in carte. No, no, Doctor, "when the brains are out, the man must die, and there an end;" and you have candidly, though not very sagaciously, informed your readers in the Number announcing your demise, that it is wonderful how you should have gone on so long. In that opinion we apprehend the Doctor's readers (if he still have any) perfectly coincide.

One word with respect to certain detestable attacks upon private character, which in every honourable and honest mind can excite no other feelings than those of disgust and abhorrence. Give us a manly antagonist, who has the courage and the intellect to attack us in the face of day, and upon public grounds, and we will never shrink from the contest. But with the cowardly assassins of private character, who differ only from the ruffians who stab and rob men in the dark, because they have less courage and more malignity, we will deal in the only way such wretches can be effectually dealt with,—by resorting to the arm of the law. We consider the time of our readers far too valuable, and the objects to which this Journal is devoted of far too great importance to occupy the one or be diverted from the other, by noticing a species of injury which, however atrocious and detestable, is still a private wrong, and therefore fit only for the animadversion of a court of justice.

The account of the proceedings at an Inquest, which appeared in the *Times* of Saturday, and which we have inserted in this week's Number, affords another striking proof of the evil which arises from the office of Coroner being held by men entirely destitute of medical information. Here is a case in which, if the report be correct, the death of the deceased was alleged and believed by some of the jury to have been occasioned by a powder sent to him by a medical practitioner; yet no question was put to that practitioner as to the contents of the paper inclosing the powder. A medical man (not the individual who sent the powder) was asked whether the deceased would not have vomited, if he had taken any narcotic sufficient to produce death, and upon this question being ignorantly answered in the affirmative, no further inquiry was made. Had the Coroner in this case been possessed of medical information, which is found in almost every instance to be the chief qualification required in that officer, he would not only have endeavoured to ascertain what drug was actually sent to the deceased, but he would have told the jury, that the absence of vomiting afforded no proof that the deceased had not been poisoned; that in many cases of poisoning by narcotic or other substances, no vomiting takes place, and that in some, as for instance where a large quantity of opium has been swallowed, it is extremely difficult to produce vomiting. If the proceedings at this inquest be accurately reported, they may be cited in illustration of the state of the medical profession, as well as of the inefficiency of the tribunal before which the investigation took place. We say, if the proceedings be accurately reported, because we think there is some internal evidence in the report of a disposition to paint the case strongly against the medical practitioner; to say nothing of a good deal of confusion in the dates. If Mr. Heyderman has been misrepresented, he will have an opportunity of explaining, through a professional channel, any part of his conduct which may appear to call for explanation. In general, it is absurd to tax medical practitioners with inhumanity, because they exercise a discretion in attending, or declining to attend, cases where they may receive no remuneration for their labours; but in this instance it appears, that the deceased had been a patient of Mr. Heyderman's, and that his dying condition was actually attributed to a powder sent to him by Mr. Heyderman, upon a mere verbal description of the symptoms of his disease.

We take this opportunity of observing, that we shall be glad to receive from our surgical friends at Oxford any information which may throw light on the supposed murder of ANN CRUTCHLEY. We confess that the present impression on our minds is, that this unfortunate woman met with her death by accident. We remember a case not very dissimilar in its circumstances, which fell under the care of Mr. HENRY CLINE, where a woman died shortly after her admission at St. Thomas's Hospital, in consequence of the vagina having been penetrated by an obtuse body on which she fell while in a state of intoxication. Not long since, the death of a rope-dancer was occasioned by a similar penetration of one of the poles to which the rope was attached. In the absence of any positive testimony implicating either WILLIAMS or any other person, we see nothing in the circumstances attending the death of the woman at Oxford, which may not be accounted for in the way we have alluded to. Accurate surgical testimony is of great importance in this case; and if such testimony be given before any judicial investigation takes place, it may lead on the one hand to the protection of innocence, or, on the other, to the detection and punishment of guilt.

A Cock Sparrow is at all periods of the year a pert and petulant bird; and Bats, though they are seldom seen at this season, will occasionally be tempted, by a little warmth and sunshine, to emerge from their dark recesses. One of the latter animals, which has just obtruded its unseemly visage upon public notice, we shall be under the necessity of driving back to the hole from which it has prematurely crawled. But, before executing this task, we must subject to a little salutary discipline, a small but marvellously pert cock sparrow.

MR. EARLE.

This surgical cock sparrow has been hopping and fluttering about lately at a great rate, and chirping away at the height of its lungs to its own complete satisfaction. In vain, however, does the little bird raise its little neck and stretch its little throat; it can only make an empty chattering, without sense or melody. We must subject it to a little restraint, in mercy to those who live within the noise; and it is necessary to clip its wings a little, lest the poor little thing should d6 itself an injury in its violent and ill-judged efforts.

We have never estimated very highly the professional or the literary attainments of this bustling little body; but we should have supposed that he could form the diagnosis between serious statement, and irony or banter; and we could not have doubted his being able, when he had the bowels in his hand, to determine whether an intro-susception had taken place, or whether there was a foreign body in the cavity. We find that we should have been wrong on all these points, and we are convinced of our error by the most unequivocal evidence, viz., Mr. Earle's own confession.

In the April Number of the Yellow Fungus, this active little man published the history of a case of tetanus; the subject of it had been a patient in St. Bartholomew's Hospital. The writer having administered, and pretty freely too, the hydrocyanic acid, but without its affecting the nervous system, stated, that "this medicine can hardly be said to have failed, and may yet deserve a further trial." He ventured, at the same time, to suggest the employment of *strychnine* in such cases, and, finally, he should like some experiments to be tried on animals affected with tetanus, of the effect of "*carbonic acid gas.*" Such were the weighty reflections and suggestions of the skilful author. In *July*, he had to contend with another fatal case of tetanus, respecting which, and in allusion to the brilliant hints so conspicuous in the history of the former case, the following paragraph appeared in vol. xii. of this Journal, p. 544:—

> "Mr. Earle has had to combat with another case of tetanus. The horror inspired by the presence of so formidable an enemy induced him to attack it with a mighty force.—Strychnine, ratsbane, arsenic, and hydrocyanic acid, were all marshalled in the field of battle; yet, notwithstanding their virulent attack, they made no impression upon the nervous system. Finally, and in despair, we were informed that Mr. Earle sought the aid of carbonic acid gas, but before he had time to direct the mighty powers of its action, the enemy was in quiet possession of the citadel. We much regret our absence during this terrible affray; we could have wished to have detailed the movements of the different generals, and their manner of attack."

Could this be mistaken by any man with an intellect at all superior in dimensions to a sparrow or a bat? Would any one but a member of the bat-club, from such a notice as this, solemnly deny having given arsenic, ratsbane, &c. &c. So vehement are Mr. Earle's asseverations, that we wonder he did not substantiate the matter by affidavit before the Lord Mayor. We should have thought it an insult to our readers, to comment seriously on Mr. Earle's proposal, which would have disgraced a hospital nurse—a proposal by which scientific investigation is put out of the question, and the treatment of a most important disease, instead of being conducted on the principles which enlightened pathology might furnish, is to be abandoned to random guess-work, and to the blind use of those powerful means, which would be at least as likely to kill as to cure. I did not use ratsbane—I did not use arsenic—I did not use strychnine—I did not use hydrocyanic acid—now I did not, and pray you, gentle Sirs, believe me! Why, good little frisky, it was as apparent on the face of the paragraph, to all save the benighted bats, that not one of these medicines was employed, as from the denial in your coarse and stupid letter. But from your own previous declarations, why did you not employ STRYCHNINE or FULL DOSES of HYDROCYANIC ACID? Answer, master bat!

Mr. Earle proceeds to rail against us in good set terms, for the report we published of his "singular variety of hernia," and his no less singular operations. Our report states, that "the history of this case, and the description of the operation," are transcribed verbatim from Mr. Earle's case book. He asserts, that although what follows is marked by inverted commas, it is not a verbatim copy, and that it has been intentionally altered to afford an opportunity for libellous comment. Some people are so stupid, that they ought not to be trusted at large without a keeper; they will run their heads against walls or posts, if any are to be met with. What could drive this little man to return to such an unfortunate subject? Little man! we beg his pardon; he is not very little, we believe. But, not knowing his person, we involuntarily depict in our fancy when we are thinking of him, a corporeal frame suited to the size of his mind; and thus he appears in our mind's eye, of about the stature that would have been respectable in Lilliput. We acknowledge that our report is not a *verbatim* copy from his case book; we are obliged to confide in our reporters for these matters. We assert, however, that our representation, instead of having been maliciously altered, is not only faithful in all the essential facts, but that it is more favourable to Mr. Earle than the notes in his ward book. We challenge him to publish them both side by side, giving his own notes exactly as they stand in his book; and we will then leave the point to be decided even by the Bat Club. As we doubt, however, whether he will accept the challenge, we will, in our own defence, supply this point, and show Mr. Earle that the materials furnished by himself would have justified a more ample exposure than we have yet made of his folly and ignorance.

Mr. Earle has operated on, and dissected the patient, without finding out the nature of the hernia; at least he has not mentioned it, although the thing is apparent enough. He probably has not perused the classic work of Scarpa,* in which several pages and three figures are devoted to illustrate that kind of bubonocele, in which the cœcum or sigmoid flexure slowly descends through the ring, continuing connected behind and laterally as in its natural situation. The case of Harris was obviously of this kind, with which Mr. Earle might have become acquainted through Mr. LAWRENCE's admirable Treatise on Ruptures,† in which it is described. He overlooked this circumstance so completely, that he speaks of the natural connexions which fix the gut behind, as adhesions of the sac to the bowel. "The sac, which was much thickened, was found closely adhering to the surface of the intestine, which proved to be the cœcum, with part of the colon." "The intestine adhered closely all round the inferior margin."—*Roderick Macleod's Fungus*, Nov. p. 411.

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* Sull' ernia; Memoria 2nda; parag. 29 and following Tab. 6. *Aderenza carnosa naturale*, is the expression he employs to denote the connexion between the protruded bowel and the surrounding parts.

† Chap. ix. sect. 6, "Inguinal hernia, in which the fixed portion of the cœcum, or sigmoid flexure, passes through the ring."

The first question in this case is, whether the operation ought to have been performed at all. We have not confidence enough in Mr. Earle's diagnosis, to submit a friend to a dangerous operation, on the warrant of his unassisted judgment; and it is not impossible that persons of more knowledge and discrimination might have found circumstances in the present instance that would have made them hesitate to use the knife. But passing over these doubts, and giving him credit as we candidly did on a former occasion, for the first step of the operation, what would a man of plain sense have done, when the exposure of the rupture showed that no strangulation existed, and consequently, that an operation had been performed, at least unnecessarily? He would no more have thought of benefiting an unfortunate patient in this miserable and desperate situation, by making *two holes* in his bowels, than of curing tetanus by "full doses of hydrocyanic acid." He would undoubtedly have closed the wound, and taken care to do no more mischief. But this would not do for Mr. Earle, who is ambitious of novelty, and goaded by a restless spirit, so that he cannot keep quiet, even when no rational indications present themselves. He proceeded, therefore, to *puncture* the *intestine* with a small *trochar*, "in order to reduce the tension of the tumour," although *his own account* renders it clear that *the tumour could not have been tense*; for he expressly states, that "air could be pressed from the tumour upwards, in the direction of the descending colon!!" It is no wonder, therefore, that after this new kind of paracentesis, "the great bulk of the swelling remained but a little diminished." This PUNCTURE, with the TROCHAR, *is not mentioned in our report*, although it is stated in his case-book: will his warmest friend ascribe the *omission* to a desire of *injuring* him?

Mr. Earle then felt a "foreign body" in the cœcum, which he chose to consider as an intro-susception; he *opened the bowels* by an incision of *an inch and a half*, that he might fight with this foreigner, and when he had made the opening, he found the bowel empty!!! We beg pardon, he found in the cavity of the tumour "numerous folds of mucous membrane." Why, what the deuce did he expect to find there? serous membrane—a sneezing cat—a bat, or a young sucking pig? This cut made into an empty cœcum, in order to discover a "foreign body," was too striking a trait to be omitted, and our reporter has accordingly noticed it; but he relates the extraordinary feat in the most tame and matter-of-fact style, without an exclamation or a comment. We omitted to draw an inference from it, which is very obvious; that Mr. Earle's internal senses are as defective as his judgment.

After these three operations; that is, the operation for bubonocele, the puncture of the gut, and the inch-and-half incision into it, Mr. Earle acknowledges what no one will have any difficulty in believing; that the patient was exhausted and the case hopeless. He says, that he therefore "did not consider it right to persevere in any attempts to restore the intro-suscepted gut," which must be deemed a proper determination, considering that he had found the cœcum empty, and consequently, that no intro-susception existed. This is a part not introduced into our report.

In our reporter's short and quite impartial account of what happened after the operation, Mr. Earle appears to much more advantage than he would have done, had we copied his case-book verbatim. One proof of this will be sufficient. From the sixth to the tenth day after the operation, the patient was gradually sinking, and approaching the end of his severe and protracted sufferings. On the latter day, Mr. Earle mentions that there were subsultus tendinum and hiccup, cold extremities, "and all the symptoms of approaching dissolution." In such a state of things, Mr. Earle directed that warm water should be injected into the bowel, in order to remove "any hardened fæces that might be accumulated there!!!" And this seems to have been actually done! This brilliant idea is positively detailed in Mr. Earle's case-book; but it was omitted by our reporter. Another omission, made with a view to injure this scientific practitioner! The large intestine had been well washed out, both before and after the operation, so that it could not contain fæces either hard or soft. Indeed, Harry Earle's two holes, the large and the small, like the Irishman's two doors for the sow and little pig, must have provided effectually for the escape of all that entered the cœcum, both thick and thin. Our operator then must have expected to get his *hardened fæces* from the small intestine!! Bravo, Little Harry!

On again comparing our report then, with Mr. Earle's own account, as it appears in the "Fungus," we find the former much the most favourable. Indeed, the latter is the melancholy spectacle of folly at full length, glorying in its own weakness. It is by far the worst specimen of surgery and writing, that we have yet encountered. When a man represents himself thus, who would connive at the unnecessary crime of misrepresenting him? He actually exults in his exploits, and speaks of his opening into the bowel as a successful measure. "The cessation of all the more urgent symptoms, and the complete establishment of an (inch and a half) artificial anus, might be urged in support of the measure—if success ought ever to be brought forward in justification of a wrong, or even a doubtful measure." Truly, he is fit to be a leading character among the Bats! What, said the traveller, must the priest be, when the god is a monkey? So we say; if Earle, Jeffreys, Rose, Keate, Guthrie, and Travers, are the leaders of the Bats, what can the followers be? If they are at the head, whom shall we expect to find at the tail?

But with Mr. Earle's restless disposition, and apparently insatiable appetite for notoriety, we doubt not that he prefers even this kind of animadversion to being passed over unnoticed—his natural endowments, and his acquirements, would never gain him distinction; he is entirely indebted to the notice The Lancet has occasionally taken of him, for having his head visible a little above those of the surrounding herd; hence, therefore, he is sure, under any event, of gaining by this kind of controversy—as Ajax said to Ulysses,—

"Ille tulit pretium jam nunc certaminis hujus,
Qui, cum victus erit, mecum certasse feretur."

We have now disposed of the cock sparrow, and, seeing that it is but a cock sparrow, we deem it unnecessary to apologise for the *modesty* of this quotation. We proceed, therefore, to the Bat.

MR. KEATE.

We suspect, that when the whole of this article shall be read—and it will not be necessary to detain our readers long—even Mr. Keate's friends will attribute it rather to our malice than our candour, that we commence by giving Mr. Keate's complaint of the accuracy of a report which appeared in this Journal, *in his own words*:—

> "In The Lancet of November 24, there is an article headed 'Mr. Keate's Treatment of Inflamed Bursæ,' in which I am represented as having directed the patient to be cupped over the bursa, at the time when the part was so tender as not to bear even the touch of a finger, and when, as the reporter adds, she could not of course bear the application of the cupping-glasses: and I am

stated after this, to have applied a galbanum plaster over the part thus previously healed.

"Now, Gentlemen, it will, I think, be scarcely credited, that in the whole of this account, not a word of truth is to be detected. The case was *not* one of diseased bursæ, but of inflammation of the joint itself, threatening ulceration of the cartilages.

"The cupping was ordered and performed, *not* over a bursa, but on each side of the knee.

"It gave *no* extraordinary pain to the patient, and completely relieved the symptoms.

"The galbanum plaster was *not* placed over the bursa, but round the head of the tibia, where there was a considerable thickening, and it was applied in such a manner as to be clear not only of the incisions of the scarificators, but also of a small portion of inflamed skin observable over the insertion of the ligamentum patellæ."

We have no time to waste on that part of Mr. Keate's statement which is merely nonsensical! What, for instance, does he mean by "*the part previously healed*?" But, to proceed to facts.

It appears from this statement, that we were completely at fault in our diagnosis, that instead of its being a case of inflamed bursa, it really was a case of the most acute inflammation of the joint—so acute, Mr. Keate says, that it even threatened ulceration of the cartilages. This is certainly a serious charge, involving either the probity or the surgical capability of our reporter; for we take it, that the distinctive marks between the two affections are so clear and manifest, that the merest tyro could scarcely fail to discriminate them. However, we will take Mr. Keate on his own showing, and suppose it to be a case of inflammation of the joint; and lest we should be mistaken as to the degree of inflammation, let it be borne in mind it was so intense that destruction of the cartilages was "threatened." Every man, possessing the least information in surgery, knows that acute inflammation of a synovial cavity, is so rapidly destructive in its consequences, that the most rigorously antiphlogistic means are imperatively necessary to subdue it.

But, let us see in what manner Mr. Keate treats a case of this description; let us inquire how far the means were adapted to the extreme urgency of the case. The patient came into the hospital on the 17th of October, and the treatment is thus recorded in Mr. Keate's ward-book, *in his own hand writing:*—

"19th. A LINSEED-MEAL POULTICE; fever diet; one drachm of the sulphate of magnesia in peppermint water, three times a day.

"22d. A POULTICE!

"26th. PROCEED WITH THE SAME PLAN.

"Nov. 2d. FOUR LEECHES! and afterwards a poultice; to morrow morning apply an evaporating lotion. Continue the mixture.

"6th. SIX LEECHES.

"12th. Cupping on the knee to the amount of ten ounces, and to the *swollen part of the tibia*; apply a GALBANUM PLASTER.

"A pitch plaster, with tartar emetic.

"Dec. 17th. Discharged."

And this, we are called upon to believe, is the treatment employed at St. George's Hospital in a case of ACUTE inflammation of the knee-joint. A patient thus affected, (at least we take Mr. Keate's assertion that such was the case,) is admitted on the 17th of October, and remains in the hospital until the 17th of December, a period of two months. And what are the means employed during this time to arrest the destructive and devastating progress of an acute inflammation of the joint? Why, during the first fortnight, LINSEED-MEAL POULTICES are applied!! At the expiration of sixteen days, the bold, determined, and vigorous measure of applying FOUR LEECHES is had recourse to. Such, however, was the violence of the disease, that after a lapse of four days, SIX leeches, aye, actually six, were applied!! The disease failing to yield under these *decisive* measures, one month after the patient's admission, cupping is directed, and this with the application of a galbanum plaster "to the swollen portion of the tibia," and a pitch plaster, with tartar emetic, are the only further means adopted. If, instead of affixing to our report "Mr. Keate's treatment of inflamed bursæ," we had designated it Mr. Keate's treatment of acute inflammation of the joint, and intimated that POULTICES only were applied in such a case during a fortnight, and ten leeches merely in the space of another fortnight, the statement would have appeared so palpably absurd, that we can scarcely imagine it would have been credited.

We cannot bring ourselves to think, that even Mr. Keate is so grossly ignorant as to have employed such treatment in a case of acute inflammation of the knee-joint, and therefore, reasoning upon the *probabilities*, it is fair to conclude that our reporter was correct in representing this as a case of inflammation of the bursa.

But we will cast aside the *probabilities*, and now let the pure veracious Mr. Robert Keate speak for himself. Let us put Mr. Robert Keate's written statement in juxtaposition with his printed declaration. IN THE WARD-BOOK, and in MR. KEATE'S HAND-WRITING, stands the following statement respecting the case under consideration :—

"MARY MARTIN, ÆTAT. 27, ADMITTED OCT. 17, 1827, WITH AN INFLAMED BURSA OVER THE PATELLA, OF TWELVE MONTHS' STANDING."

After this exposure, it may perhaps be thought scarcely necessary to subject Mr. Keate to any further castigation ; but justice, even-handed justice, shall be dealt ; and we have not yet quite done with him.

"The cupping (he says) was ordered and PERFORMED, not over a bursa, but on each side of the knee." Again—"It gave no extraordinary pain to the patient,"

It will be seen by the report, that TEN OUNCES of blood were directed to be taken away, but such was the "EXCRUCIATING AGONY" produced (we take the patient's own expression,) that only FOUR OUNCES could be abstracted.

We have looked in vain to our statement, for the assertion that cupping was performed over the bursa ; it was then said, and we repeat it, that the cupping was performed upon an inflamed part. The case was one of a very common description ; it was, in fact, what is ordinarily known by the name of "house-maid's knee." There was inflammation of the bursa patellæ, and the surrounding loose, *external* cellular tissue of the joint was implicated. Mr. Keate himself lets out the secret at the end of his string of assertions, when he says, that the galbanum plaster was applied, "so as to be clear of a *small portion of inflamed skin observable over the insertion of the ligamentum patella.*" In the Ward-Book, on Nov. 6th, it is written by Mr. Keate himself—"PAIN OVER THE BURSA," and on the 23d, stand the words of "APPLR. BURSÆ," in reference to the pitch plaster: yet, Mr. Keate has the intrepidity to assert, that it was "*not* a case of diseased bursæ"—and to talk of "a disgraceful system of misrepresentation, which it is the duty of all honest men to assist in exposing." The profession will decide with whom the disgrace rests.

Mr. Keate concludes his letter in the following manner :—

"For the sake of all that is *moral*, for the sake of harmony among ourselves, and of our respectability in the eyes of the public ; for the sake of common decency, honesty and *truth*, I wish that I might hail the present as the dawn of a better system, and more honourable feelings suited to the cultivation of science, and to the practice of a liberal profession."

This is an *attempt* at fine writing. Mr. Keate is evidently ambitious of the praise of eloquence, as well as of sound surgery ; but, after the chastisement which we have been constrained to inflict upon him, all that we deem it necessary to add shall be in the shape, not so much of answer as of admonition. Learn, we would say to this individual, to respect TRUTH, before you vapour about misrepresentation ; learn to disdain FALSEHOOD, before you venture to turn periods about morality.

EPITAPHIUM

UNIUS E LITHOTOMI INFELICIS VICTIMIS.

VICTIMA CHIRURGI JACET HIC PUER ; INTEGER ULLUM
NON HABUIT MORBUM ; SECTUS HABET LAPIDEM.

Εις τον αυτον.

Κατθανε παις πρωην, πως, δ'ȣ ; τετμηκε Τραβερσδς.
Ου λιθον ειχε ταλας ζων μεν, εχει δε νεκρος.

GRATIFYING INTELLIGENCE.

Last week Mr. Brodie, the eminent surgeon, opened the body of Samuel Partridge, who died in the second year of his apprenticeship to a respectable grocer residing in the neighbourhood of Manchester Square. The public will be delighted to learn that Mr. Brodie met with no accident in performing this operation ; the eminent surgeon only cuts his finger on opening the bodies of Earls.

SPIRIT OF THE MEDICO-CHIRURGICAL REVIEW.

"Satire, no doubt, has its advantages, when levelled against folly and knavery."—Dr. Johnson.

To James Johnson, M. D.

My dear Doctor,—Strange things, I perceive, from perusing the last two or three Numbers of the Medico-Chirurgical Review, have occurred, are now in progress, and are still expected in the medical profession. In manners, it seems, it has retrograded a few centuries in as many years; it is divided into numberless factions; torn to pieces by dissentions; patients have died by thousands, the victims of its late mania for caricature, and it is on the very verge of an abyss of oblivion and degradation. But, then, there are signs in the heavens, and a Sampsonic movement of talent on the earth, which assure us, if there be any truth in divination, that a purer and better era is about to burst on the world in 1828. Thus the signs of the times are interpreted, that the past, present, and future prospects of the profession, exhibit a spectacle at once melancholy, awful, and consolatory; but, for my own part, owing perhaps to my ignorance of hauruspication, and the art of building castles in the air, I cannot, for the life of me, discover the grounds of all this sorrow, alarm, and congratulation. Forty or fifty years ago, for instance, you would not find a doctor in a whole district, who could move in a minuet, or turn a partner in a country dance; but such is the improvement of manners now, that you could not select one in a hundred who is not a proficient in waltzing, and as deeply read in the mysteries of Terpsichore, as in those of Hygeia. Pray, who is that gentleman riding down the street, whose attitudes harmonise so gracefully with the elastic motions of the noble animal which he bestrides, that both seem incorporated into one, and more than realise the fiction of a Centaur? Now, tell me who that personage is, whose arms are so elegantly entwined with those of that blooming Hebe of eighteen, as they float through mazes of quadrille, that he might be mistaken for Zephyr bearing away Psyche from the rock? Next inform me who that individual is, whose jokes are setting the table in a roar; and whose wit and learning, in half an hour, will be producing similar effects on a company of philosophers at one or other of our medical debating societies? I will tell you, my dear Johnson, he can be no other than an average specimen of our modern doctors and surgeons. Only examine them again, and say if they do not dress, dance, dispense health and compliments, in a style of elegance quite unknown to the wig-and-cane folks of former ages? Look to them at our fox-hunts, dinner-parties, and in the arduous encounters of debate; and are they not Ducrows, Chesterfields, and Ciceros, to a man? A pretty comparison, indeed, between the gallant, eloquent, and learned Cramptons, Lawrences, and Haslams, of the day, and the queued, querulous, pragmatical old Radcliffes and Rutherfords of other times. And these are the men whose retrogression of manners brings tears into your eyes, and who are on the brink of ruin. Not they, indeed. There is not one of them, I would venture to assert, that did not take leave of the old, and welcome in the new year, in a libation of, at least, three bottles; and who did not lay by a handsome lot of debentures, after balancing the fee-book with the domestic ledger, at the close of the season, for future emergencies. On the contrary, if posterity and happiness are to be found in any profession, "a heart that is humble might hope for it here;" and when I pointed out your signs of the times to my friend Dr. Julep the other day, would you believe it, the hearty old fellow merely gave his box a sexagenary tap, and looking up at the clouds, exclaimed with Polonius, "mighty like a whale," Sir. Your gloomy description of the state of medical affairs must, therefore, my dear James, be a phantasmagoria, conjured up by the deranged state of your digestive organs; for all those whose attention I have directed to your pictures and prognostications, like Burns' man of independent mind, "they look and laugh at a' that." Some smart skirmishing, I grant, has taken place in the medical world of late; but what of that? When was there a period of its history, free from similar occurrences? Not to ascend higher up than Harvey, how much blood and ink was shed on his discovery, and in what did the contest terminate? Why, in the very useful and universal belief, that man is really an hydraulic machine. You also, of course, recollect the controversy on vaccination; in what manner did it end? In the inestimable blessing of saving the British fair from that most awful of all visitations to a lady's face, the seams and scars of variola. In what did the disputes on contagion more recently terminate? In the overthrow of Dr. Maclean, and the general conviction that one man with typhus, by some means or other, will communicate the disease to hundreds. And to bring the matter nearer our own times, how think you will the question of reform conclude? I will tell you; in the cutting up of all the parchment charters of medical corporations into tailor's measures.

So far, therefore, from considering such signs of the times as subjects for lamentation, they should rather be looked upon as indicative of the most salutary consequences, and active healthy state of the public mind. Men, like the clouds, have ever been, and always will be, found in opposite states of electricity; and when they come into collision, there is a momentary flash of light thrown on some detestable job, or absurd doctrine, the parties moving off, the one, of course, dark and guilty-looking as the lucid remnant of the storm; the other, bright and radiant as the rainbow, portending to society the triumph of truth over corruption and error. There may also be a great many divisions in the profession: I am quite sure there are two great ones—the one seeking by every means in its power to recover those rights of which it has been deprived, the other working equally hard to retain its illegal acquirements. And is not all this perfectly consistent with the nature of things? for what class of men ever was without its dissensions, or when was mankind without its honest men, and its knaves? There is too, I will admit, a general gaggle among the low, stupid, dumpy fowl, that flounder about in the "Blue and Yellow" foliage, encircling certain stagnant receptacles of medical literature; nor is this any more surprising, than that the tenants of a horse-pond should cower, and clatter their pinions, when the eagle or the falcon floating above them, threatens them with destruction. It appears, however, that a certain phlebotomist company, which set up in London some four or five years ago, has been the sole cause of this momentous state of medical affairs; and that, instead of depletion having produced its usual sedative effects, it has really set men stark mad, converted others into brutes, made more mortally ignorant of their profession, and, in short, renewed something like the horrors of Pandora's box among the sons of Æsculapius. The manner in which this company has inflicted these extraordinary evils on the medical world, I shall now, my dear Johnson, partly examine, taking your text, of course, as the basis of my comments.

The first item in the catalogue of crimes by which the profession has been brought to the brink of ruin by the "company," is its publication of unauthenticated reports, which must be necessarily, as you allege, erroneous and libellous. Do you, my dear Doctor, perceive any logical defect in this position? This statement, at least, appears to me an assumption, and its conclusion a "non sequitur;" for, what a silly set of fellows must the phlebotomists be to have adopted the very plan of reporting, which must have defeated their wicked designs! and how much more simple is it in you to ascribe an effect to a cause which you labour to prove ought not to have produced any influence on the public mind? Either these reports must have been true and generally credited, or the consequences which you attribute to their publication could not have followed; for we cannot entertain the moral solecism, that men could be injured by reading that in which they did not, and ought not, to believe. If the mere circumstance of being anonymous be a proof of their malice and incredibility, the "company" might as well have hoped to destroy the public by giving them Prussic acid in phials labelled "poison," as to ruin the medical tribe by the circulation of reports which carried along with them their own antidote. But to quit the further illustration of this slight contradiction, and to try these reports by another test, some half dozen of which have been weekly published for the last four years. Now taking your own intense anxiety to detect errors in them as the standard of estimating their fidelity, pray how many of them have you proved to be erroneous during, suppose the last half year, all which time, be it observed, you have been looking out for errors in them with as keen and vigilant an eye as a tiger watches for his prey? Let the pages of the Medico-Chirurgical Review answer the question. The correctness of certain opinions advanced in either three or four out of this vast collection of cases, has been impugned—the falsity of none has been even attempted to be demonstrated by evidence. Even one of these imputed errors, you are obliged to admit, may have been a mistake or error of the press, the word "strumous" having been inserted for "carcinomatous." If proof, therefore, of their accuracy were wanted, that proof is surely afforded here, not by a "partizan," or one of the "junto," but by the defeated scrutiny of a declared enemy, Dr. Johnson himself, whose unqualified charges of malicious inaccuracy in these reports would require, to be true, the impossible, or at least improbable postulates, that the practice of a surgeon was always correct when censured, and the representations of reporters invariably erroneous unless they always praised. Indirect proof, however, is not the only species of testimony which you bear to the veracity of these reports; you are even lavishingly bountiful in your evidence of their fidelity, for there is not a number of your Journal for the last year which does not contain a selection of these cases which in the aggregate you condemn. Admitting their correctness, thus positively and inferentially, with what nameless species of modesty can you assert such contradictory statements; or of what materials do you suppose your readers to be composed, when you call on them to read in one page cases as true, which in the next you represent as false!

Another principal cause, it seems, of the degradation of the profession, and the inaccuracy of reporters, is the unpardonable crime of receiving money for their labour; and "hireling" is now the magic phrase employed to depreciate the contents of THE LANCET. Now, my dear James, there is nothing like a definition, when men wish to be understood; and if I understand your accusation rightly, it comes to this, that if a man receives payment for literary labour, it must be worthless and unworthy of credit. On this new version of the value of labour, the higher the price the worse the commodity, your brother reviewers of the Westminster entertain quite a different opinion, having asserted some time back, that every writer who was not paid for his contributions, was, to use their own phrase, "an ass." Though this may not be generally correct, yet the precedents of all scribblers of prose and poetry from Homer, who, we are told, made some shift to live by singing the Iliad, down to Lord Byron, who expressly states, and acted on the principle, that a man should "live by the sweat of his brain, as well as the sweat of his brow," are in favour of the position, that the reception of money does not necessarily deteriorate the value of literary productions, or render their authors unworthy of belief. I know you are fond of cases, and you shall have one. An architect is employed to build a house in a given manner; a dispute arises about the execution of the work; Dr. Johnson is called in to decide the question; but instead of applying the rule and square to the structure, he demands the contractor's bill, and immediately exclaims, "O! the villain, it's money he wants, therefore he builds crooked houses!" Again, to make you the principal instead of the umpire in the parable,—suppose you had been in attendance on the Duke of Clarence; that circumstances rendered a consultation necessary; that the gentleman called in, having read your new doctrine of the value of labour, instead of inquiring into the propriety of your prescriptions, asked whether you had been feed, and on being answered in the affirmative, he exclaimed, "Please your royal highness, that impostor, your physician, has taken money for his advice, therefore he must have, according to his own views, intended to poison you!" To make the matter still more personal, for any illustration founded on such high authority must be valid, do you not yourself, Doctor, write for, and pay other writers, hired in the management of the Medico-Chirurgical Review? and do you really think, as you lead us to suppose, that the paltry stipends which you can afford to give the presumed "great unpaid" of that Journal, convert their jokes from Joe Miller, and their brilliant reviews into stupid, false, and illegible stuff? Nay, more, it is a melancholy fact, that were that monument of industry, a certain portion of which is written and printed every day, the Medico-Chirurgical Review, to cease to clear cost, we should be for ever deprived of the unpaid labours of its editors and contributors.

In short, my dear Johnson, you have given yourself an unlimited license of accusation against the writers in THE LANCET; but as it might detain me too long to enter on an examination of these charges in detail, I shall merely sum them up in the aggregate, and proceed to the main object of this address, to contrast your own conduct with that which you condemn in others. These writers, it appears, have conspired against the peace of the profession, entered into a covenant of defamation, and sworn to feast themselves on the mangled victims of their vituperation. While pointing out with horror this affiliated band of "literary assassins," you direct the attention of your readers to the pleasing contrast afforded by the pure unsullied pages of the Medico-Chirurgical Review. To take your own representations for facts, there is no excellence or virtue in which it does not abound; its criticisms are all correct and impartial, "as if the Stagyrite overlooked each line;" its views of medical policy are exclusively orthodox; its pages never sullied by abuse; justice, propriety, and consistency, in short, are its peculiar attributes.

We shall now contrast the contents of the Review with the professions of the editor, and, first, his boast of invariable justice. This quality you have displayed in its greatest perfection, towards all persons whom you knew or suspected of being favourable to THE LANCET. Thus, when Mr. Lawrence on a late occasion demonstrated the absurdity of the division of medicine and surgery, how did you dispense justice to his efforts? Why, to go back to the pages of your Review, and exhume one of its forgotten articles, (if it ever were thought on,) and endeavour to prove that Mr. Lawrence had really plagiarised its contents. The bee paying a visit to the wasp's nest, or a botanist's "hortus siccus" in search of honey, would not be a more incongruous specimen of the instinct of that little emblem of genius and industry, than Mr. Lawrence seated over a back number of the Medico-Chirurgical Review, with pen in hand, endeavouring to extract new ideas on any subject out of its pages. Yet while he was thus inculcating your own doctrines, you did not hesitate to assimilate his labours to those of

Hunt and Cobbett, and to accuse him of the dangerous design of subverting the present established order of the medical world. Dr. Haslam, in an evil hour, made some remarks on The Lancet, which, of course, were not relished by you, and he too, like Mr. Lawrence, has paid the penalty of your displeasure in the last number of your Journal. His evidence in a late case of lunacy, is there impotently examined by the metaphysical jargon and opinions entertained of the nature of mind in former times—light tested by darkness, and his testimony condemned as "erroneous, quibbling, and ridiculous, and himself pointed out as a materialist." Mr. Wardrop is another instance of the manner in which you transfer your hostility from The Lancet to its correspondents. You have watched, as every reader of your journal may perceive, the progress of aneurismal diseases more with the vigilance of a cat than a critic; and seem even to discover a secret pleasure in the anticipation of his failure, as may be collected from your allusion to the expected termination of a case to which no reference can here be made. These are but a few of the many examples which might be adduced, to demonstrate your love of justice towards the writers and readers of The Lancet, the whole of whom you have denounced in the bitterness of your wrath.

It will be seen, that every effort in your power has been used in the persecution of the known or suspected friends of this publication; the scheme of your hostility required that its enemies should be as lavishly praised and flattered. This counterpart of the plot, you have acted with equal fidelity as the other; and, for any individual to be associated in The Lancet with the patronage of corporate abuse, or the mal-practice of his profession, has been to him a certain passport to a panegyric in the pages of the Medico-Chirurgical Review; your hatred of that Journal, being the precise measure of your affection for its enemies. It would, however, be an endless task, to particularise the instances in which you have poured the balm of consolation into wounds inflicted by The Lancet; for, even Mr. Rose blooms in your page without a thorn, having, it seems, caught the infection of giving clinical lectures, which you are sure no one is more qualified to deliver, though you would have deemed it an unpardonable offence for any writer to have inculpated this gentleman for the neglect of a duty, the performance of which you now so warmly commend.

Your love of justice has been so intense, that you except yourself from the "number of those who flatter, for base purposes, one class of the profession at the expense of the other." You not flatter, indeed, and for selfish purposes! What part of the profession have you not flattered to fish out an occasional subscriber, from the various departments of which it is composed? Your appetite for subscribers has been so voracious, the pangs of your editorial hunger have been so urgent, that they have in this respect betrayed you into the grossest inconsistencies, having alternately eulogised and abused the different medical corporations and the members of which they consist. Collectively, you have censured the London Corporation of Surgeons, while there is scarcely an individual connected with it, that you have not extolled. The University of Edinburgh has in like manner experienced the elasticity of your justice; having at one time condemned the composition of theses, and the examination of the graduates as mere baubles; while, on a later occasion, in noticing the lawsuit pending between the town council and the senatus, you represent the latter as the only persons competent to the direction of the curriculum, and the education of medical pupils. In the case of the London College of Physicians, you condemn them corporately for attempting to examine the doctors of the University of Edinburgh, whose diplomas you represent, at another time, as obtained without a proper scrutiny, and through the instrumentality of grinders. If we turn from the selfish flattery of the members of corporations to that of authors and hospital surgeons, we shall find you equally sedulous in your vocation, of endeavouring to reconcile principle with the attainment of selfish purposes. What writer, for example, have you not repaid for the analytical spoliation of his volume, by some fulsome compliment to his intellectual and moral qualities? What hospital surgeon have you not invited in terms of abject flattery, to furnish you with the reports of their practice, as a set-off against those published in The Lancet? Finding them deaf to your call, (for old birds are not to be caught by chaff,) you appealed to the vanity of their pupils to supply the cold indifference of their masters, for the splendid reward of having their names placarded in the Medico-Chirurgical Review. Incensed against the masters for not being caught by your shallow artifice, and for preventing their pupils from sending you reports, you lavish on them every scurrilous epithet which your vocabulary of abuse could supply; and perceiving that the reports presented by the students were never read by the public, you now betray them also, and decline the further distribution of prizes. What but a similar spirit of cajoling could have induced you to publish a quarterly list of the names of your subscribers, in which we are amused with a perpetual increase, as in the quarter's revenue, without being told the falling off during the same time. Your opinion of the common sense of the profession, must indeed be of an exalted kind, when you suppose that its members could be seduced into a subscription, for having their names tacked to the tail of the Medico-Chirurgical Review.

Having lavished praise so munificently on others, it could scarcely be expected that you would forget yourself, and you have consequently made your egotism subservient to the same designs. The "exegi monumentum" overwhelms the reader in every page of your review. There is no doctrine or discovery made at home or abroad, which you would not fain persuade the public that you are either the propagator, or that you entertained similar opinions with the authors of such doctrines and discoveries. But no commentary can sufficiently explain the spirit of the great original in this respect, so here you go, in a few of your own choice samples :—"We believe we have taken more pains to make the doctrine of Broussais known in this country, than any other journalist ; in short, it comes to that state described by Dr. Johnson—MORBID SENSIBILITY. The following passage of Professor Schmiditman of Berlin, shows the most remarkable correspondence of ideas between the German professor and Dr. Johnson on that state called morbid sensibility of the stomach. We are gratified to observe, that in all our medical discussions in the metropolis, the subject of pathology, as cultivated by our continental neighbours, is exciting universal attention, and that what we have long urged in this Journal, is confessed with one voice,—the superiority of continental pathology over that of our own country. Our readers are aware that this is the doctrine advanced in this Journal since its commencement. Eight years have now elapsed since we called the attention of the profession to the treatise of Laennec. The digestive organs have furnished materials for a doctrine which seems to gather strength by time, and literally like the snow ball, *vires acquirit eundo*. The criticisms of Drs. Paris and Johnson are now fairly before the profession, and God forbid that we should attempt to judge between the parties. We are surprised to find Mr. Cusack silent on any operation of this kind, as appearing in our Journals, having detailed Professor Lallemand's case in this series, where the whole of the lower jaw was removed. We are rather surprised that Dr. Duncan, who takes the credit of first practising percussion in this country, should have overlooked it in a case long after we ourselves had called the attention of the profession to thoracic percussion and abdominal pressure, in formal articles. N.B. We were a good deal surprised at a singular mistake in Dr. Forbes's dedication, where he gives the credit to Dr. Clark of being the first to promulgate the work of Laennec in this country ; our analysis of it having come out several months before Dr. Clark's notes were printed !" These are a few of the claptraps of selfish vanity, along with a display of hard names, such as "analyses—periscopes—extra-limites—trimestral fasciculi—medicina forensica—" resembling the jargon of a juggler ; and some trite scraps of Latinity, such as "respectus honesti—addit acervo—sparsa colligens—vires acquirit eundo"—stuck on every page, like Goldsmith's broken china, merely for show, by all which devises you contrive to give to the Medico-Chirurgical Review the meretricious glare of dress and obtrusive manner, affected by a certain class of society to attract customers.

As you never flatter yourself or others for selfish purposes, so it seems you are determined never to descend to abuse, or the unparliamentary vice of attributing motives ; your whole labours being directed to preserve the harmony and uphold the character of the profession. As a guarantee for the performance of these promises, you appeal to the unsullied pages of your Journal. Now, we shall immediately see whether Dr. Johnson has never condescended to concentrate his bilious jokes into the convenient projectile of a nick-name ; or attempted the profane task of scrutinising motives, which alone, he protests, belongs to God. Now, I think I shall be able to cull from your pages as fragrant a nosegay of rhetorical flowers, as could be collected in the classic regions of Billingsgate itself; and here are a few of them :—"Rats, radicals, liberals, independents, juntos, literary assassins, libellers, blackguards, bullies, drones, drivellers, harpies, vampires, upas trees, moles, incubi, calibans, quacks, demi-rips, scandalous chronicles, diabolical systems, ferocious epidemics, and men turned into brutes," are the metaphorical food with which you regale your readers without offence, and treat your enemies, without, of course, meaning any abuse. So much for the absence of abuse in the pages of your Journal. We shall now find how well you have adhered to your own doctrine, that "the motives of men's actions lie deep in the recesses of the human heart, and God forbid we should attempt to drag them from their dread abode." Who could have supposed, that the same hand which penned the preceding sentence ; that the same voice which called down Heaven to witness its sincerity, should be the medium through which the following passage was enunciated :—"Let them not be intimidated by the threats of a few individuals, whose utter and reckless disregard for all public utility, for all honourable distinction; in short, for all things but selfish, paltry, pitiable pelf, is a disgrace to the philosophic spirit of the age in which we live." This passage is of course as little intended for the imputation of motives, as for the disturbance of the peace of the profession, though directed to pupils as an encouragement to rebel against their masters. Motives, therefore, you never impute; and that you never meddle in the private affairs of the profession, is equally certain on similar authority; and after possessing yourself of the prescriptions of Portal and other physicians, you immediately proceed to keep the following promise:—"God forbid that we should turn any of these documents to the detriment of individuals." The vow is scarcely recorded, when the prescriptions and opinions of Portal are published to the world, and their author held up to public ridicule, on the plea that he is eighty years of age, and not likely to hear of the injury done him, as if his ignorance of the wound inflicted on his reputation could justify its commission. It seems, however, that you have been in the habit of securing physicians' prescriptions, and not always punctual in keeping them secret, as the following passages would indicate:—"By a little management we induced the patient to return home and collect the prescriptions and written opinions of the Lions of Medicine and Surgery. While this paper was before us, a man presented himself with a sheaf of prescriptions, from one of the very first physicians (in point of practice) in this metropolis, containing a farrago of the medicines in use in former times for the cure of rheumatism, though the man was labouring under an aneurism of the aorta, and this was the rheumatism for which he had been treated, by a physician who has, at least, received 50,000*l.* from the public, and whose fiat is fate!" And this, too, is the manner is which Dr. Johnson sends patients home for their prescriptions, in order to hold the authors of them up to public ridicule, in such a manner, that they cannot possibly be mistaken. Such, too, is the manner in which a private conversation with Mason Good, in the College of Physicians is turned against his reputation after his death, by representing him as ignorant of the practical parts of his profession.

To conclude, my dear Doctor, I assure you the profession is not in the least danger; and that it pays little attention to the cabals of Journalists. I may also, perhaps, venture to assert, that you are not the model of perfection you would have the world believe; and that you do not practice as you preach; for, with God eternally on your lips, like the Persians of old, you admit the existence of an opposite principle, to which no small part of your devotion is directed. You accuse THE LANCET of being the organ of a party—in attempting to be the organ of all, you have betrayed each, until treachery itself cannot trust you. You accuse its writers of being anonymous — with the names of your own scribes the world is unacquainted. You accuse it of paying for literary labour—you do the same yourself. You accuse it of publishing false reports—you retail them at second hand to your subscribers. You accuse it of a defamatory league—you boast of an association with men combined to effect its destruction. You accuse it of disturbing the peace of the profession—you exaggerate dissension with the same design as the incendiary adds fuel to the flame, under pretence of arresting its progress. You accuse it of being libellous—a jury of your countrymen found you guilty of one of the most flagrant libels ever penned. You accuse it of meddling with private life—you have obtained surreptitiously men's opinions to render them ridiculous, and betrayed the confidence of the dead. You accuse it of flattering for selfish purposes—you praised its enemies and depreciated its friends for the same ends. You accuse it of scurrility — your vituperation has been bounded only by your talent for abuse. Of all these follies and inconsistent charges, your hatred of that work, I believe, to be the principal cause. It was scarcely ushered into the world, when you attempted to strangle it in its birth; like Hercules in his cradle, it has strangled the assailant. You have since unremittingly persecuted it—its success has only proved the weakness of your attempts, and the approved principles on which it has been conducted. You now turn the prophet of its destruction, and the puffer of its opponents; time will unfold the truth of your inspiration, just as the printers will explode the "bubble companies of 1828!" You have bullied, prophesied, whined, canted, recanted, thrown yourself into as many shapes and attitudes, as Proteus, to destroy it; but Antæus-like, it has risen above every effort of your multifarious plans of attack. Its success seems to haunt your mind as a ghost does that of an assassin, for you cannot compose a page, of which it does not make a component part; and as I believe you incapable of forgiveness, and that your wrath is not to be appeased, I can only wish, at parting, that it way not at length break your heart.

Yours, &c.

A HOSPITAL REPORTER.

THE LANCET.

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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture XVI.

Management of the more copious Floodings.

Gentlemen,—It was observed to you in a former lecture, that we sometimes meet with cases of the earlier months, especially, in which the discharge from the womb is sparing; but in practice, we also meet with another variety of the disease, that, I mean, in which the discharge of blood is *more copious, more dangerous,* and *more pertinacious*—a sort of bleeding occurring occasionally in the earlier months, but still more frequent in the middle and later periods of pregnancy.

As in those cases where the discharge of blood from the uterus is sparing, it is always proper, when the discharge becomes copious, that the patient be placed in the recumbent posture, and that she be kept perfectly still; nor, if she lie in a very small room, or in a confined situation, provided the strength will allow, ought we to neglect her removal to a larger and more airy apartment, for the stimulus of heat has an obvious tendency to keep up the bleeding.

Again, in those cases where the discharge from the uterus has been copious, as in the more sparing discharges, you are not to neglect the administration of nourishment. Nourishment the patient can scarcely take with advantage, provided the large gushes of blood are still upon her; but it happens generally, in the cases under consideration, that after one or two large gushes, one, two, or more pints of blood escaping, the patient sinks into a state approaching deliquium, a small drain of blood alone remaining; and under these circumstances nourishment may be administered with a fair prospect of advantage. Often, it is true, the digestive powers are in great measure lost; but generally, I conceive, a part of the food is digested, and contributes more or less to the formation of chyle and blood, in quantities not to be despised when the patient is endangered by inanition.

In the earlier months of pregnancy, where the discharge of blood is small, the oil of turpentine is recommended, on authorities in matters of experience well deserving our deference. By Denman, and others, this same oil is recommended in the more obstinate cases of flooding, now under consideration; and although I have not myself tried the oil sufficiently often to enable me personally to vouch for its efficacy, yet on the whole, from the experiments which I have made with it, the impression left on my mind is favourable to its powers. I have told you already, that the quantity which different stomachs will bear is exceedingly diversified: from half an ounce to an ounce in the course of twenty-four hours may be considered as an average dose; sometimes you may exceed this, and sometimes even a smaller daily quantity will be rejected by the stomach. A drachm or two at once may be administered, floating on distilled water, a form less offensive than that of emulsion, sometimes recommended.

Further, when there are large discharges of blood from the uterus, the patient being prone to sink into a state of asphyxia, it may then, no doubt, become necessary to keep up the action of the heart by stimuli, (spirits more especially,) administered in a manner which I shall hereafter prescribe; but if, on the other hand, you are persuaded that the faintness is fugacious, beware of rousing the patient too hastily. Of the vascular action a certain degree of reduction is safe and to be wished for in these cases, because, under this faintness, the stream of blood loses its impetuosity, and the inherent disposition to concretion is augmented, the quantity of blood passing through the vessels in a given time, and consequently the quantity of blood in given time discharged from these vessels, when torn open, being smaller in consequence; and on all these accounts, if the faintness be not very great, it is to be looked upon as a natural, and very powerful, and very desirable remedy, for staunching the discharge.

In flooding from the uterus, considerable advantage appears to be derived from the use of *lead* taken into the stomach, or administered by the rectum. To omit less weighty authorities, this remedy, Dr. Haighton used to mention with great commendation, conceiving that he had himself used it with decided advantage. If you make trial of the lead, it is in the larger doses you should employ it, the quantity being from four to six grains of the *super-acetate* in the course of 24 hours; six grains being a "large daily dose," and four grains in the 24 hours, a dose more moderate. With respect to the mode of administration, it may either be dissolved in distilled vinegar, with a proper mixture of distilled water, or it may be formed into pills. And as the lead sometimes offends the bowels, giving rise to very severe spasms there, endeavours may be made to correct this evil, by the conjunction of the lead with opium. To two grains of the super-acetate, add half a grain of opium, to be formed into pill, and this the patient may take two or three times a day; or again, to five grains of the super-acetate of lead, add 60 drops of the tincture of opium, three ounces of distilled vinegar, and the same quantity of distilled water, mixing and dissolving; the patient afterwards taking, four times a day, one quarter part for a dose. The lead, though reputed a powerful medicine, especially where there is a tendency to draining, is, it must be acknowleged, an unwieldy sort of remedy,—a kind of elephant in the battle. For this reason, the lead ought not to be used, unless the case seems peremptorily to require the more active treatment. It is not on every occasion that I would advise you to sit down, and, as a matter of course, to prescribe the super-acetate. If, however, you find the discharge copious and dangerous, and, above all, degenerating into obstinate drainings; if, to use a strong expression, death stare the patient in the face, under such circumstances, the active use of the lead might be recommended, and I think you would be fully justified in giving those large, and somewhat dangerous, daily doses, of which the measure was before given.

Under the action of lead, a paralytic affection, affecting the brachial muscles, is liable to be produced, occasioning a weakness of the wrist, denominated the *dangles.* In painters, and those whose occupations lead them to handle the more active forms of the lead, this obstinate paralysis is now and then produced. Whether the internal use of the lead have the same effect, I am not prepared to decide; but I never saw or heard of a single case of flooding or other bleeding, where, under the use of the super-acetate, this distressing disease has threatened the patient; and although I conceive that this fact ought to put you on your guard, there is no reason why you should be intimidated or deterred by it. Colica pictonum is certainly produced, sometimes by the lead in larger doses; a very severe pain extending itself along the bowels, as the lead makes its way through them, harassing the patient much, but lasting a few hours only. From 20 to 30 grains of the compound extract of colocynthis, with 2 or 3 or 4 grains of opium, is a useful remedy in these cases; or provided you deem the pain to be seated principally in the larger bowels, an ounce of the *oleum ricini,* and half a drachm, or a drachm by measure, of the tincture of opium, may be injected into the bowel with advantage.

Where the lead is given with due caution in the larger doses, it may be given in safety; but you may ask me, in what do these cautions consist? If you are administering the lead largely, you should observe the bleeding, and if you have effectually stopped it, let the lead be laid aside. Active and dangerous as the remedy is, a single dose more than seems to be justified by the urgency of the flooding, ought not to be administered. When the lead is administered, watch; if intestinal pains are not produced, it is well; while, on the other hand, if you find severe pains in the bowels, the remedy should be laid aside, for, under these circumstances, its continuance is not, perhaps, wholly unattended with danger. Again, in administering the lead, you ought to bear in mind, as you proceed, the aggregate quantity which may have been already given. Till, from your own experience, you find that more may be safely administered, do not rashly exceed the aggregate of 20 or 30, or, at most, 30 or 40 grains of the super-acetate, relinquishing the further use of the remedy if these quantities are inadequate to afford relief. So that by not exceeding a certain aggregate, which may be fixed by your own observations, by relinquishing the lead as soon as intestinal spasms become manifest, by refraining from the further use of the remedy, as soon as the bleeding is effectually checked, however small the quantity which may have been administered, you secure to yourselves, I think, the active use of the remedy without its danger.

When discharges of blood from the uterus are sparing, it is not my custom to apply *cold,* powerfully and extensively, to the lower parts of the abdomen—the back, thighs, buttocks, and so on; although, in conformity with popular feeling, I have recourse to vinegar and water, particularly if the temperature of the patient be warm. But when the discharges of blood are more abundant, cold, a very powerful remedy, must be called to our aid, and ought to be effectually applied, though not without due caution. When a woman has lost so much blood, that she is, in every part of her body, cold already, which, in dangerous bleedings, is no uncommon occurrence; the application of cold, though, in conformity to popular prejudice, it may be recommended, is, I fear, of small advantage; but if you have a great deal of blood coming away, and if, with this, there is a certain warmth of the system, and a sort of febrile hurry of the circulation, in such cases cold may, perhaps, be administered with decisive advantage. Cold water is sometimes sprinkled over the body; cold water is occasionally injected into the rectum; and ice, naked or wrapped in linen, is occasionally pushed into the vagina, the remedy not being without its dangers, for if you *freeze* the vagina it dies. To omit these practices, however, there are, for ordinary purposes, two modes in which the cold may be administered; the one is by laying bare the abdominal surface, and dashing over it cold water from the cup, or by means of the hearth-brush dipped in a pailful of water, a rough, yet effective, practice; the other, a gentler method, conducted as follows:—

From the cistern, or the well, you procure a pailful of water, to which a pint or two of vinegar, recommended by popular opinion, may be added; then, taking some napkins, you effectually refrigerate them, by dipping into this cold mixture, or by thoroughly besprinkling their surface. This done, you apply them extensively to the central parts of the body, front and posteriorly, as soon as they become warm; it may be every two or three minutes, oftener or seldomer as the communication of warmth from the body of the patient may require. In some cases, the local application of cold seems really to be of considerable advantage; I have in my mind, at this moment, one case of draining, where other remedies had been tried with but little effect, and where the cold alone *appeared* to be efficacious in checking the discharge.

If the fœtus be come away, and if you have removed the placenta, in *general* practice it is unwise, where there are large discharges, to *plug* the vagina; for this, in many cases, might occasion an *internal* bleeding, the bleeding continuing, though the efflux is prevented, and the blood, of consequence, accumulating in the cavity of the uterus. Where, however, in the more copious floodings, the womb is not emptied, and the placenta is not yet away, the plugging of the vagina may be tried with considerable advantage. The purpose of plugging is, that of allowing the blood to accumulate in the vagina and the uterus, so as to form there clots, which may close up the mouths of the bleeding vessels. This object may be variously obtained: taking a napkin and folding, you may lay it upon the genital fissure, closing the orifice of the vagina without the introduction, or the irritation, of a plug. More conveniently, however, in many patients who are not irritable in these parts, you close the canal, by introducing a plug of tow, or sponge, or soft cloth. Cloth or sponge, is the plug which I am myself in the practice of introducing, more or less, according to the capacity of the cavity, recollecting that the smallest mass which will inhibit the discharge of blood from the vagina, is the best for the purpose. Of women, there are some in whom the vagina is so destitute of irritability, that introduce what you will there, the organ bears it without reaction; of others on the contrary, and more especially of young females, the vagina is sometimes so exceedingly susceptible, that the plug cannot be borne, unless, perhaps, for a few hours; and, in these cases, the application of a napkin to the genitals externally, may be substituted. When the plug can be borne for a few hours only, apply it nocturnally; this may prevent your being called up in the middle of a cold December night. When the plug remains quiet, don't be in too much haste to remove it; recollect, that the longer it is left there, the more completely will the vessels become contracted and closed up.

In the earlier and middle months of pregnancy, as in the end of gestation, you will find, as I explained to you in a preceding lecture, that to empty the uterus is a most effectual mode of stopping the blood, and hence the use of *deobstruents;* for it generally happens, when floodings have occurred previously to the birth of the ovum, that on the abstraction of the ovum and the complete evacuation of the uterus, the discharge wholly, or in great measure, ceases. Where a patient is labouring under floodings in the earlier or middle months, and more especially under obstinate floodings, recurrent again and again; the emergency justifies us in having recourse to this remedy, unjustifiable perhaps in cases less pressing. In such cases, the thorough evacuation of the uterus is the only remedy on which we can certainly rely. The uterus, however, it is not in our power to empty with the same facility and certainty as the intestines or the stomach; but there are three remedies of the deobstruent class deserving a trial in these cases, and these three deobstruents are—succussion, injection, and the secale cornutum. A jolting ride on a rough road, in an uneasy carriage, where the propensity to miscarriage is strong, may occasion the expulsion of the ovum. The remedy is rude—scarcely to be recommended—fitted to a few cases only—where strength remains—and the pregnancy is of the earlier months—say the first two or three; in latter gestation it would be dangerous.—A medical attendant should be in the carriage,—the house of the patient should always be at hand. Saline clysters will do little, if the womb is indisposed to contract; but if the fibres are in action, an ounce of salts and six of the infusion of senna, or other more powerful stimuli of the rectum, may be tried with advantage. But of all the stimuli exciting uterine contraction, that, which, failing flatly in some cases, in others, however, seems to operate in the most decisive manner, is the secale cornutum, or ergot. In powder, in infusion, in decoction, it may be given; and suspecting from some experiments made, in conjunction with Mr. William South, that its virtues reside in a vegetable alkaloid, I presume it may hereafter be administered in the form of pill, like the quinine, when probably it may be found less offensive to the stomach:—I would invite the chemists to the investigation of this point. In general, my formula has been, of ergot ʒj. in coarse powder, of boiling water three ounces, to be decocted rapidly to one half, the patient taking of the decoction poured off, one-third every twenty minutes, unless some obvious effect were previously produced. In one miscarriage of the third month, to omit others, after the administration of the ergot, I remember the pains became almost incessant till the ovum was expelled. The ergot will not, I think, act unless the uterus be irritable and disposed to the pains. At Butler's, in Covent Garden, you may get supplies of the secale cornutum; I now show you specimens of it. It is principally produced in America, and perhaps I may add the South of France.

In as many as thirty cases where floodings occurred in the end of gestation, and where the placenta was not lying over the os uteri, Merriman found that the discharge of the liquor amnii either stopped the floodings, or reduced so greatly the quantity of the bleeding, that it became no longer dangerous. By Rigby, under similar circumstances, the same remedy was tried, and in fifty or sixty cases with the best success. Set down, therefore, the discharge of the liquor amnii among the remedies for suppressing the floodings of the latter months. Nor is it difficult to accomplish this; carrying one or two fingers of the left hand through the os uteri up to the membranes usually felt with facility, take a bluntly-pointed instrument, say a female sound, for example, sharpened for the purpose, and with this instrument puncture the membranes and discharge the liquor. Under this operation the hæmorrhage becomes diminished, perhaps immediately; and although the ovum may now and then, perhaps, be retained till the end of the nine months, especially if opium have been given, yet more generally in two or three days afterwards, the whole is expelled, and the womb emptying itself, contracts thoroughly, so that the flooding becomes entirely suppressed. In all cases, in the middle or later months, where there is an obstinate efflux of blood from the uterus, remember that you have in the discharge of the liquor amnii a most powerful remedy; in some of the worst floodings, where other remedies are failing, you lacerate the membrane, and the hæmorrhage ceases.

By manually emptying the uterus, so as to allow of a thorough contraction of its cavity and constriction of its fibre, the bleedings may be suppressed, though not in all cases, in many. And there are different modes in which this evacuation may be accomplished; sometimes in floodings, we find the child's head has been pushed down into the vagina, where we may apply a pair of forceps upon it, and draw it forth. In other cases, and these are far more frequent, the child is lying entirely above the brim of the pelvis in the cavity of the uterus, so that no parts of it, except the presentation, can be felt. Now in cases like these, the hand may be introduced into the cavity of the uterus, and by that operation of turning already explained to you, the fœtus may be brought away. Even in the earlier months, although the manual evacuation of the womb is undesirable, the parts being thin and lacerable, should the removal of the ovum be deemed necessary, it may sometimes be accomplished. With the utmost gentleness lay the left hand in the cavity of the vagina, passing the genital fissure for this purpose. Then the bulk of the hand remaining in the vagina, let the first and second finger be passed up into the cavity of the uterus, so as to reach from mouth to fundus, while the womb, felt above the symphysis pubis, is by the action of the right hand pressed down upon the fingers of the left. By this manœuvre, the contents of the uterus may be brought within reach and control, and, by a small action of the fingers, may be easily got away. Though practicable, this operation is of dubious use: if unskilfully or unwisely performed, it is surrounded by the risks of laceration. Thus sometimes by the insertion of the fingers, sometimes by the operation of turning, and sometimes when the head of the child is lying in the vagina, by the judicious application of the forceps, the fœtus and placenta may be abstracted; when, as before, the womb contracting, and the muscular fibres becoming constricted, little further discharge of blood need in most cases be apprehended. And thus much, then, respecting the principal remedies to which you are to look, when you have the more obstinate and dangerous discharges of blood from the womb.

We now, Gentlemen, pass to the consideration of the third sort of cases, frequent in consultation practice, and of the utmost importance—I mean those cases in which large quantities of blood are come away from the uterus, in the latter months more especially, and where you find, on entering the apartment, that the woman is already dead; or, as more frequently happens, that she is lying in a state merely approaching to asphyxia. To two dead females I have been called in the course of one night, both destroyed before my arrival by large eruptions of blood from the womb. And should you meet with cases of this kind, as they must occasionally fall within the circle of a comprehensive practice, your first consideration relates to the removal of the child.

In some instances, the fœtus, low down in the pelvis, or lodging in a dilated os uteri, might be abstracted with little disturbance by turning, or the forceps; in others, the os uteri being shut more or less completely, the fœtus could not be extracted without violence, by the natural passages, and the razor, and the Cæsarian incisions, would, in a scientific view, be a preferable method of delivery. In deaths from flooding, however, the fœtus will rarely be found alive. The interrupted placento-pulmonary function frequently destroys it even within the uterus, perhaps while the mother still survives. Considering, as I do, that the fœtus ought certainly to be saved from drowning; if practicable, I should in my own family, wish the child to be withdrawn, if this could be accomplished without violence; but should delivery be impracticable, without laceration of the uterus, or the Cæsarian incisions, I should forbid it. Before the patient is utterly dead, and past all feeling, to remove the fœtus by *violence is a horrid cruelty*, which we must, I am sure, all of us, with one voice, condemn; and considering how possible it is, that some sensibility may still inhere, even when an ordinary practitioner little suspects it, as the security of the mother is always paramount in British midwifery, in conformity with this principle, I think that severer measures ought to be forbidden altogether, interdicted even in those cases where the woman appears to be dead. Generally, however, under these large discharges of blood, on arriving, you find your patient still living, but in a state approaching to asphyxia: she is pale and ghastly, and cold and gasping, and, in great measure, insensible; her heart flutters, there is little or no pulse in the wrist; she lives still, but the grave yawns under her, eager for its prey; move her from one side of the bed to the other, she dies; disturb the clots by passing the fingers into the vagina, she dies. It is clear that when patients are in this condition, trembling upon the very brink of destruction, there is but little time for you to think what ought to done; these are moments in which it becomes your duty not to reflect, but to act. Think now, therefore, before the moment of difficulty arrives. Be ready with all the rules of practice, which those very dangerous cases require.

Called to a case of this kind myself, the first thing I do, is to direct my attention to the circumstances under which these bleedings occur; for these floodings may occur in the pregnant, or the unimpregnated,—in the earlier, or in the latter months, without the placenta over the os uteri, or with a placenta partially, or altogether covering this part—before the birth of the *fœtus*, or afterwards—before the birth of the placenta, or afterwards—or, in twin cases, one child being born, the other may remain in the uterus—or, when the secundines have to appearance been removed, a large piece may still remain in the uterus, the accoucheur not suspecting in the latter, still more frequently in the earlier months. These points are of no small importance. On reaching, therefore, the apartment of your patient, the attention should be directed immediately to all of them; this is easily done, if you have them on your mind, and should certainly by no means be neglected.—What are the circumstances under which the floodings occur.

Again, if I am called to one of those cases in which the patient approaches to asyphyxia, I am anxious to know whether the bleeding has been arrested; sometimes it is going on, more frequently it has been arrested, or the discharge which continues is a mere show. To determine a point so important, I would recommend you, with as little disturbance as may be, to clear the blood from the genitals; and then, again, with as little disturbance as may be, to spread cautiously a napkin between the hips and the bed; this done, another clean napkin, interposed between the thighs, may be applied against the orifice of the vagina, and if there is no further discharge the napkin will retain its whiteness, but if the bleeding continue, blood will make its appearance on the napkin in the form of concretions and a red patch, broader or more circumscribed, according to the quantity, of the discharge. Of the abundance of the bleeding you may judge from the colour; if redder, then larger orifices are open—if paler, then smaller; or, at all events, in the latter case the discharge is smaller, and of course less likely to be productive of danger.

In cases of this kind also, where the patient is approaching to asphyxia, I am very anxious to know whether the system be on the rally or the decline—a most important inquiry. Now, sometimes, you find the patient is evidently improving from half hour to half hour; her hands and feet are warmer—her pulse is stronger—her countenance is brighter—her mind is livelier—in a word, there are all those appearances of amendment which, after you have been in practice a little, you expect to meet with when the strength is rising. On the other hand, however, you are sometimes meeting with different cases, in which, although the hæmorrhage is stopped, the patient is evidently on the decline. After floodings immediately, women sometimes die in a moment, but more frequently in a gradual manner; and over the victim death shakes his dart, and to you she stretches out her helpless hands for that assistance, which you cannot give, *unless by transfusion.* I have seen a woman dying for two or three hours together, convinced in my own mind that no known remedy could save her; the sight of these moving cases first led me to transfusion. Experience is the only mean of acquiring the knowledge of these mortal symptoms. To seize the tact which will enable you to determine with promptitude and certainty whether death must ensue or not, the cases must be seen. For a full enumeration of the symptoms which indicate the death arising from inanition, I must refer you to the history of them already given; it may not, however, be amiss in the way of repetition, to remark here, that to myself the fatal termination is principally foreshown by a certain ghastliness of the countenance—by a restless disposition to change posture—by a long-continued cessation of the pulse in the wrist—by a gasping respiration, like that produced by running—and by a jactitation of the arms and legs, joined with a feeling of most oppressive anguish. From these symptoms, associated with the ordinary signs of inanition, women seldom escape; nor must it be forgotten, that they sometimes, in a fainting fit, die suddenly, or more slowly, without the harbingers of dissolution to foreshow the event.

One more remark, and I conclude. If you are called to cases in which there has been a good deal of discharge from the uterus, the patient lying in a state approaching to asphyxia, you will sometimes find her, as you enter the room, supplicating that her posture may be changed, and this more especially, if under the flooding restlesness have supervened. Now I wish you to understand, most distinctly, that the change of posture is very drangerous, and that frequently, when it is allowed, it does not afford the expected relief. When a great deal of blood is come away from the uterus, even where the patient is rallying and likely to do well, and where, perhaps, for two or three hours together, but little discharge has occurred, were you to direct the patient to be lifted from one side of the bed to the other, you might cause a terrific disturbance of the circulation, or a renewal of the discharge destructive to life. One woman, in whom a large bleeding had been suppressed, perished, in this manner, under my own observation; to appearance all danger was over—like a thunder-cloud it was passed away—when, unhappily, she rose to the erect posture; the flooding was renewed, and she sank. Many years ago this case occurred to me, and made a strong impression on my mind. A patient, on whom I performed the operation of transfusion, and who was very effectually relieved by it (ultimately recovering) two or three hours afterwards, was so urgent with me to allow a change of position, that my feelings subduiug my judgment, I assented. From this disturbance of the body, however, such perturbation of the heart ensued, that for three or four minutes together, I thought the patient would have sunk; and, really, the recovery might more properly be ascribed to our good fortune, than our good practice. Only the other night I was called to a patient, in whom there was a large discharge of blood from the uterus, and where the woman was reduced to a state approaching to asphyxia, though likely to do well; this woman, contrary to my wishes, was moved, and for a few minutes her life seemed, of consequence, to be in danger the most imminent. So that to revert to the rule with which I set out, and which these facts illustrate, remember, that if you are called to cases in which the women are lying in a condition approaching to asphyxia, you ought never without need to move them at all—and, above all, you ought not to move them into the erect posture. One change you may, *perhaps*, sometimes make with advantage, gently and cautiously raising the legs, so as to bring the blood upon the heart and central parts of the body, you may with equal caution and gentleness withdraw the pillows, and suffer the head to sink below the shoulders; the head, if the woman chance to be already lying close upon the edge of the bedstead, being allowed to hang down over it a little way, so as to facilitate the access of the blood to the brain. All this, I say, you may perhaps do, in these cases, with gentleness, with caution—shall I add, with fear and trembling; but, after all, I am not altogether convinced of the excellence of the practice, nor dare I dogmatically pronounce, that it is either very useful or very safe.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE XXIV.

On Carbonic Acid, Carbonate of Ammonia, and the Combinations of Carbon with Chlorine and Hydrogen.

The principal fact which I endeavoured to point out at the end of the last lecture was, that carbonic acid consists of carbon and oxygen in combination, but that the oxygen undergoes no change of volume in being converted into carbonic acid; so that if you convert 100 cubic inches of oxygen into carbonic acid, you have always the same volume of carbonic acid gas. We stated, that 16 parts by weight of oxygen took up six parts of carbon to produce carbonic acid; if, therefore, we represent carbon as six, we say, it takes two proportionals of oxygen, 16, to form 22 of acid. Its specific gravity is 46.6; in comparison with air it is as 1.544 to 1.000; and to hydrogen, as 22 to 1. There is a property which carbonic acid possesses, namely, to render lime water turbid, and this is therefore used as a test of the carbonic acid, and a very good test it is, with certain precautions, which will be afterwards pointed out.

Now, if the diamond and carbon be the same, as we have represented, it follows, that if we burn the diamond in oxygen we shall obtain the same result as if we burnt carbon in oxygen, and this was proved to be the case by Lavoisier in 1772. He burnt five grains of diamond in a given weight of oxygen, and he found that he obtained the same result as when he burnt five grains of pure carbon in oxygen, and he was therefore led to conclude, that the diamond was pure carbon; and, although this experiment has been many times repeated the result has always been the same; the inference is, therefore, irresistible, that charcoal and the diamond, although differing in mechanical texture, are similar substances in their chemical nature. Mr. Faraday informs me, that the diamond may be easily burnt by directing a stream of oxygen upon it through the flame of a spirit lamp, and if it be then immersed in a jar of oxygen on a platinum dish, which has some lime water at the bottom of it, you will find that combustion will go on, and that sufficient carbonic acid gas will be formed to render the lime water turbid.

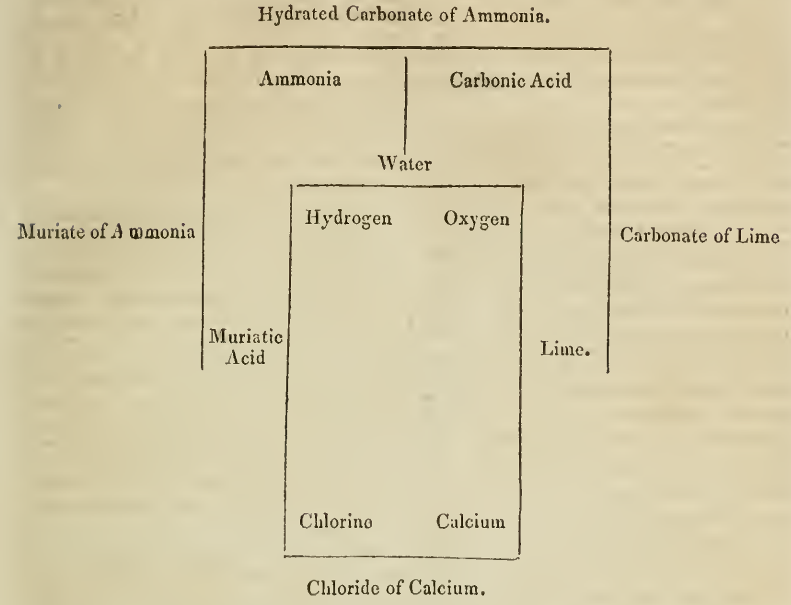
Carbonic acid is generally procured by other processes for the purposes of experiment; it may be obtained by decomposing any of the carbonates, but the one generally selected is the carbonate of lime or marble. You introduce some small fragments of the carbonate into a flask of this kind, and pour upon it some diluted muriatic, or sulphuric acids; the result is an abundant extrication of carbonic acid gas, which is one of the ingredients of the marble. The gas, as you see, may be collected over water, but it must be preserved in vessels with glass stoppers, since, if you leave it standing over water it becomes absorbed. At the common pressure of the atmosphere, water takes up its own volume of gas; at a pressure of two atmospheres it takes up double the quantity, and so on; and therefore we find that by passing carbonic acid gas into very strong vessels containing water, we may make it take up very considerable quantities of the gas. Water thus impregnated is generally sold under the name of soda water. Dr. Nooth invented an apparatus for impregnating water with a large quantity of carbonic acid gas, which is generally known as Nooth's apparatus: it consists of three vessels made of glass, the lowest of which is flat and broad, so as safely to support the others, and to contain the materials for evolving the gas before mentioned; the gas passes through a tube coming from the second vessel, in which there is a glass valve opening only upwards, and this vessel contains the water intended to be impregnated with the gas, which may be drawn off by a glass stop cock in the side of the vessel. Into this, the tube of the third and uppermost vessel dips, from which the supply of water is derived as it is drawn out of the second; and at the top of it is a heavy conical stopper, which should not be screwed very tight, as it acts as a safety valve and keeps up a degree of pressure on the vessels. The acid collected in this manner renders lime water turbid, and reddens delicate vegetable blues; but this reddening is not permanent, as, when the paper dries the acid flies off, and the paper again becomes blue; and this enables us to distinguish between the volatile and fixed acids. Now I know if I add excess of carbonic acid to a fluid containing carbonate of lime, that the carbonate will be held in solution, and hence we have many springs containing large quantities of carbonate of lime, the water of which, when exposed to the air, gives off its carbonic acid and deposits the lime, and these are called petrifying springs. The water of Tunbridge Wells, and some of the waters of Cheltenham, contain large quantities of carbonic acid. In some water this acid is contained in immense quantities, and it is thrown up in the water of the springs as if from some inexhaustible source, as in the springs of Pyrmont; which are chiefly chalybeate.

There are one or two properties of carbonic acid to which we shall briefly advert, as, for instance, its power of extinguishing flame, and its great weight, by which it will remain for some time in an open vessel. You will observe that a taper is extinguished the instant it comes into contact with the gas; but, after a time the acid becomes mixed with the air, and then combustion will be feebly supported. By its weight, it may be poured from one vessel to another; to prove this, if we put a taper into the bottom of a vessel, and pour carbonic acid from another into it, it will be instantly extinguished. It is known to miners under the name of *choak damp*; and the fact is, that the epiglottis becomes spasmodically affected, when we attempt to breathe, it closes upon the larynx, and produces suffocation. Now miners and well-diggers ought to try the state of the air of a place before they venture into it, by first putting a lamp into it; but they are such hardened and thoughtless persons, that we continually hear of fatal accidents happening from the breathing of carbonic acid gas in pits, and in the lower parts of mines, where it will be sure to descend on account of its great weight. Carbonic acid is produced in great abundance by the respiration of animals, and, in a future part of the course, we shall have to tell you the quantity of it respired in a certain time, and the effect of it upon the blood. The fact is, that all animals, when breathing, are continually taking a quantity of oxygen into the lungs, and throwing off carbonic acid, and the same thing is accomplished by the respiration of plants. In all cases of combustion, carbonic acid is a great product, and therefore a large quantity of it is always being thrown out into our atmosphere. It has but a feeble attraction for bases, and is, therefore, easily expelled by heat, as in the manufacture of lime; the limestone is a carbonate of lime, and the carbonic acid is readily driven off at a red heat. It is also readily driven off from its combinations by the stronger acids, when its presence is indicated by an effervescence.

Now, although carbonic acid extinguishes the flame of the taper, of sulphur, of phosphorus, and other burning bodies, it will support the combustion of the metal potassium, and an alkali will be formed, namely, an oxide of potassium, by the metal abstracting the oxygen of the acid. It requires to be put into the gas in a state of good ignition, when it will be seen to burn in the gas with great intensity. (This experiment was shown; a quantity of carbonaceous matter was deposited, and an alkali formed.) Now I mention this circumstance to show the caution with which the chemical nomenclature should be employed; as you see that the term supporter, or non-supporter, of combustion, should be taken with great modifications.

The last property of carbonic acid which I have to mention, is, that it has been condensed by Mr. Faraday into the liquid state, and Mr. Brunel has been led to employ this fluid as a motive power in an engine instead of steam. As the pressure required for its liquefaction is equal to forty-five atmospheres; the application of such pressure as a motive power, is very ingenious, and will, no doubt, have a certain degree of success, but that it will ever come into competition with steam, I do not pretend to say; at least not in our time. Mr. Brunel has succeeded in obtaining some ounces, indeed I believe I may say more than a pint of liquid carbonic acid.

We come now to *carbonate of ammonia*, and have to consider the action of carbonic acid upon ammonia. If you introduce a little *liquor ammoniæ* into a jar of carbonic acid gas, the gas is rapidly absorbed; but you will find that there are, in point of fact, many combinations of ammonia with carbonic acid, and that their history is rather a more complicated matter than has generally been suspected. Now here is ammoniacal gas, and here carbonic acid gas, and these will entirely condense each other in such proportions, as to form a true carbonate of ammonia, consisting of one volume of carbonic acid gas 17, and two volumes of ammoniacal gas 22, the resulting compound being represented by the number 39. If water be present in the vessel in which we combine these gases, the ammonia will take up another volume of carbonic acid, and then we have a *bicarbonate of ammonia* produced, or rather a hydrated bicarbonate of ammonia. It is composed of two volumes of carbonic acid 44, one of ammonia 17, and two volumes of water 18, and therefore its equivalent is 79. In general you find carbonate of ammonia in large masses in the shops, in the state in which it is broken out of the subliming vessels in which it has been procured, from a mixture of carbonate of lime and muriate of ammonia; the result of which decomposition is in addition to the hydrated carbonate of ammonia and chloride of calcium, the water being always found in combination with the carbonate; and you may readily understand the nature of the decomposition from the following scheme:—



Now, supposing the materials perfectly dry, the water is formed by the union of the hydrogen of the muriatic acid, with the oxygen of the lime; the ammonia of the muriate of ammonia unites with the carbonic acid of the carbonate of lime, to form with the water the hydrated carbonate of ammonia, whilst the chlorine of the muriatic acid, uniting with the calcium of the lime, forms a chloride of calcium as you see set down. There is another proper and true carbonate of ammonia formed in the following proportions, namely, of three proportions of carbonic acid, 66, two of ammonia, 34, and two of water, 18, so that its equivalent number is 118; this is the composition of the carbonate of ammonia, of the common *ammoniæ subcarbonas* of the Pharmacopœia, as was shown by Mr. Richard Phillips. A pint of water at 60°, dissolves rather less than four ounces of it, and this solution is the *liquor ammoniæ subcarbonatis* of the Pharmacopœia. It has a highly pungent and urinous smell; it acts upon vegetable blues in the manner of an alkali, turning them green, and reddens turmeric paper.

Carbon and *chlorine* were first found in union by Mr. Faraday, who mixed some carburetted hydrogen with an excess of chlorine, and exposed it to light. A white crystalline substance was formed, which, when purified by washing, was found to be a binary compound of carbon and chlorine, in the proportion of three parts of chlorine, 108, and two of carbon, 12, giving as its equivalent the number, 120. This *perchloride of carbon* is insoluble in acids and alkalies and ether, but it is soluble in spirits of wine, and has a sort of aromatic odour, although it is nearly tasteless. It acquires the state of vapour at 135°, and what is curious, since the discovery of this first, a second and a third compound of the same elements have been found, so that we now have three compounds of chlorine and carbon.

Having now described the combinations of carbon with chlorine, iodine and oxygen, we come next to show you its combinations with *hydrogen*, which form a very interesting class of bodies.

The union of *carbon* and *hydrogen* has been called *carburetted hydrogen*, or *olefiant gas*, which may be readily obtained by the decomposition of alcohol by sulphuric acid. Mix together four parts of sulphuric acid, and one part of spirits of wine, and this will produce, when heated, a plentiful supply of carburetted hydrogen. Why it has been called olefiant gas, you will presently see by the action of chlorine upon it. A hundred cubic inches of this gas weigh 29.7 grains, so that it is a little lighter than air, to which it stands in the relation of 98 to 100, and to hydrogen as 14 to 1. If regarded as to its composition, it is found to be composed of one part of carbon 6, one of hydrogen 1, making its representative number 7; but, by its union with the hydrogen, it loses half its bulk, which is necessary to be borne in mind, in order to account for the specific gravity, two volumes of hydrogen being condensed into one of the gas. You will find, in the first place, that unless it be kept for a long time over water, it has an ethereal smell; it is very fatal to animals, it supports combustion, and burns itself in contact with air, with a vivid flame, and the result of the combustion is water. Now, if you mix *oxygen* with this gas, you will find that, for its perfect combustion, one volume of the gas must have three volumes of oxygen, and this is the result of the combustion; namely, one proportional of carbonic acid, and one of water, which also serves to show its composition. When *chlorine* is mixed with this gas, it forms a substance which has been improperly called *oil*; this happens when the gases are mixed together, in the proportion of one volume of the carburetted hydrogen with two of chlorine, and when they are allowed slowly to combine over water; but if, instead of doing this, you burn them, you will then find that the carbon will be precipitated, and that muriatic acid gas will be produced. This was shown to be the case by experiment. You see, said Mr. Brande, from the dense cloud of carbon thrown down, what an immense quantity of it was suspended in this before transparent gas, but, unfortunately, it never falls down in the shape of diamonds. This carbon it is which makes the gas so useful for the purpose of illumination, the carbon giving an intensity to the flame. That muriatic acid gas is formed, you may easily satisfy yourselves, by uniting the fluid in the jar with any vegetable blue colour.

Some of the other compounds of carbon and hydrogen which have been more recently discovered, and the mode of producing the common coal gas for illumination, we shall take up in the next lecture.

ROYAL INFIRMARY, EDINBURGH.

"*Ligature applied to the external Iliac Artery, by Dr. Ballingall.*"

The subject of this operation, J. Thompson, a man of middle age, has been in the Hospital for more than three months. He was admitted for a tumour in the groin, by some considered a carcinomatous gland, by others fungus hæmatodes. Its removal was followed by a tedious and extensive process of sloughing and suppuration, having a large ulcer which occupied the greater part of the hollow of the groin. In the centre of this ulcer, there remained a deep excavated pit of about the circumference of a shilling, immediately below the centre of the crural arch, which was generally covered at the bottom with a whitish tenacious matter, the surrounding sore having, in some time, assumed rather a healthy granulating surface. In this state the patient continued confined to his bed, with but little variation in the appearance of the ulcer, from October to the 13th of December, when our attention was called more particularly to the case, in consequence of the occurrence of hæmorrhage for a few days previously. On examining the ulcer at this date, it was covered towards its centre with an ash-coloured slough, the granulations having been absorbed; the glands in its vicinity were partially enlarged, and painful; the limb on the affected side was slightly œdematous; and he complained of a gnawing, lancinating pain shooting through the parts. The pulse was 107; the tongue furred; and bowels requiring to be kept open by castor oil. In this condition he remained with little alteration of the local and constitutional symptoms described to the 18th, when the bleeding again returned to the amount of a few ounces, but soon ceased. In the evening of the same day, at about half past one and three o'clock, the hæmorrhage recurred; and in consequence of its decidedly arterial nature, a consultation was held at half past seven, and an operation determined on, which Dr. Ballingall performed, by making an incision three inches in length in a straight line, and extending from near the abdominal ring to the anterior superior spinous process of the ilium. Having cut through some thickened cellular substance, the tendon of the external oblique muscle was exposed and divided, along with the internal oblique and transversalis. The artery, which was covered by several enlarged lymphatic glands, was now felt pulsating in the bottom of the wound; in removing these glands from the trunk of the artery, a vessel of considerable magnitude was divided, which, bleeding very freely, Dr. Ballingall immediately seized the external iliac in the fingers of his left hand, and with the other, passed a ligature round the artery; tied it firmly; cut off one of its ends close to the knot; dressed the wound with adhesive plaster, and ordered an opiate to be immediately given to the patient.

The deviation from the usual semi-lunar incision, to a straight one, was rendered necessary in consequence of the extension of the ulcer over the lower margin of the external oblique muscle.

On visiting him on the 19th, we found him threatened with peritonitis; he had little rest; was troubled by eructations during the night; abdomen disturbed, and painful on pressure; pulse 116, small, and hard; bowels constipated; skin hot; tongue furred, and complained of much thirst. No pulsation perceptible in the limb, which, for fourteen hours after the operation, became cold and numb, but then regained nearly the natural temperature. Ammonia was immediately given, and sixteen leeches applied to the abdomen. On the 20th, the symptoms described had considerably abated; the pain of the abdomen on pressure was much less; he slept for some hours from another opiate; the tongue still furred, but moist; pulse 118, softer and fuller; and bowels relieved once by the enema. Another opiate was administered on the night of the 21st, which procured him some rest; and on visiting him on the morning of that date, we found him free from pain of the abdomen, except on severe pressure being made on the part; the distention almost entirely subsided, but more troubled by eructations; pulse 96, improved in strength; tongue cleaner, and bowels opened by castor oil. The wound, on being opened, was found to have united superficially to about two-thirds of its length, a cavity being left underneath, from which a quantity of sanious matter was discharged. From this date to the 29th, his health gradually but slowly improved, having had some rigors and perspirations at night; his pulse alternating between 96 and 108; his bowels kept open by castor oil and enemata, and sleep promoted by opiates. The wound, after an unhealthy suppuration, assumed a granulating aspect, and the ligature came away at the latter date. No pulsation can be distinguished in the limb, which continues still numb and powerless to a certain extent. At the date at which we are writing, the original sore remains nearly in the state already described; and the wound made in the performance of the operation, is united all but about half an inch.

Scotus.

Edinburgh, Jan. 19, 1827.

ST. BARTHOLOMEW'S HOSPITAL.

STRANGULATED FEMORAL ENTEROCELE, WITH ULCERATION OF THE STRICTURED BOWEL ON ITS MUCOUS SURFACE, BY THE PRESSURE OF GIMBERNAT'S LIGAMENT.

Elizabeth Tomline, aged 48, was admitted into Queen's Ward, Dec. 3, 1827, under the care of Mr. Lawrence. She stated that she had been subject for some years to a swelling in the right groin, which had always been easily reducible, and had occasioned no inconvenience, so that she had never worn a truss.

On Wednesday, Nov. 28, whilst standing at the washing tub, she felt a sudden increase of the tumour, accompanied with pain; she immediately went to bed, but was unable to return it. In the evening the pain increased, and vomiting came on; she took some aperient medicines, which produced no effect. The vomiting and constipation have continued to the present time, but she states that the pain and tenderness in the tumour and abdomen were more severe two days since than at present.

On her admission into the hospital, there was a tumour, about the size of a large walnut, in the right groin. It was rather tense and elastic, but not very painful. The abdomen was generally swelled, nearly free from tension, and but slightly painful on pressure. She vomited occasionally a dark fluid. Pulse frequent, but not full nor hard. She was immediately put into a warm bath, and attempts made (by Mr. Weekes, the house-surgeon) to reduce the tumour, but without effect. Aperient medicines were given, and an enema administered; the medicine was rejected, and the clyster returned without fæcal matter. Mr. Lawrence, who saw the patient soon after her admission, considering that it was the fifth day of strangulation, determined on operating immediately, which he did at eleven o'clock, p.m. On laying open the hernial sac, a small quantity of light-coloured serum escaped, and a portion of small intestine was exposed, of the deepest brown colour, nearly approaching to black. This was so closely strictured, that it was impossible to introduce even the end of a small probe on the anterior or upper side of the bowel. The director was therefore, with some difficulty, passed on the outer side, and the stricture enlarged by carrying the curved knife obliquely upwards and inwards, when the bowel was easily replaced. The integuments were brought together and united by three sutures, and adhesive straps. Two hours after the operation, three tablespoonfuls of the following mixture were given, with directions that it should be repeated every hour until the bowels were opened.

Magnes. Sulphat. ℥i;
Mist. Salin. ℥viii. M.

4. Two o'clock, a.m. Her bowels had been moved two or three times, the pulse had become quick and sharp, and she complained of pain in the abdomen. Venesection to fourteen ounces. About an hour after this, considerable hæmorrhage took place from the wound, so that it was necessary to take away the sutures, and secure two or three vessels.

Eleven o'clock. Has slept at intervals during the night and this morning; the bowels have been evacuated several times with much relief; complains of great pain in the vicinity of the wound and abdomen, which is swollen, and very tender on pressure; pulse hard and sharp; no bleeding from the wound; blood taken this morning not inflamed. (Venesection to twelve ounces. Fifty leeches to the abdomen, warm fomentations, and a bread poultice. Continue the mixture every four hours.) In the afternoon she became sick, and vomited; the pain, swelling, and tenderness of the abdomen, were not relieved, but, on the contrary, increased; her countenance had undergone a marked change; pulse quick and feeble. Haust. effeves. c. mag. sulph. ʒi, every two hours; the bowels, which had not been opened since the morning, were evacuated by a clyster. She continued to get worse; pulse more feeble, and body covered with cold perspiration; she suffered extreme pain, became delirious, and died at eleven o'clock, P. M,

Examination fourteen hours after Death.

The abdomen was nearly filled with numerous convolutions of distended small intestine, streaked with red at the points of contact, and slightly agglutinated to each other, and to the parietes. This was the portion of the canal above the protrusion, the seat of which was in the ilium, about four inches from the cœcum. The protruded bowel was about two inches in length, and agglutinated to the abdominal parietes and the surrounding convolutions, the inflammation being most considerable at this point, and extending thence over the cavity. It exhibited the same discoloration as when it was exposed in the operation, but had not lost its vitality. The discoloured portion was bounded by a circular indentation, as if it had been tightly embraced by a cord, and this contraction was not affected by powerful inflation. The indentation was deepest where the bowel had lain under Gimbernat's ligament, the sharp edge of which had left a crescent-shaped white mark on the peritoneal surface. The mucous membrane was ulcerated in a narrow line corresponding to this mark. The intestine for some inches above the protruded part was highly inflamed.

Remarks.—This case strikingly illustrates both the local and more general effects, which the stricture is capable of producing in cases of strangulated rupture. The bowel had suffered serious mechanical injury at the strictured part; and the coats of the protruded portion had undergone so considerable a change in consequence of this pressure, that they were incapable of recovery. Until the time of the operation, the symptoms were merely those of mechanical obstruction; that is, constipation, general enlargement of the abdomen, without tension or pain, and disturbance of the stomach. Soon after the operation, symptoms of peritoneal inflammation appeared, namely, severe pain and tension, constant sickness, disturbed circulation: there can be no doubt that this inflammation was excited and maintained by the presence in the abdomen of the altered portion of bowel. The symptoms were, indeed, mitigated by the occurrence of stools, and by the loss of blood; but they returned very quickly in each instance, and soon destroyed the patient.

It is worthy of remark, that, although the intestine had suffered so much from the stricture, the general character of the case, both in the degree of the symptoms and the rate of their progress, was decidedly chronic. This should teach us, that the apparent mildness of the symptoms is no reason for deferring the operation, whenever we are satisfied that strangulation exists.

Some months ago, Mr. Lawrence operated in a case of strangulated femoral enterocele, exactly like the present. The sac contained a small portion of gut, nearly black; copious evacuations followed the operation; but the patient gradually sunk under symptoms of peritoneal inflammation. When the body was opened, the protruded gut was found just as discoloured as when it was replaced. Violent inflammation appeared in the neighbouring peritoneal surfaces, and this extended in a lessened degree over the cavity. When the gut was taken out and inflated, it was deeply constricted, where it had been embraced by the stricture, and reduced to one-third its natural diameter. The indentation was the most remarkable opposite to the edge of Gimbernat's ligament, and the mucous membrane exhibited at the corresponding part a long linear ulceration.

SCIRRHUS OF THE TONGUE.

Sarah Charles, ætat. 42, a thin woman, was admitted into St. Bartholomew's Hospital, Nov. 13th, 1827, under the care of Mr. Lawrence. About nine months before, the left side of the tongue became swollen, hard, and stiff, without much pain. The sense of taste on the affected side was hardly impaired, nor was the health deranged. The swelling and induration increased, so that she found it necessary to have some of the molar teeth of the lower jaw extracted. At the time of admission, the posterior and lateral part of the tongue, as far as the middle, was swelled, hard, and knotted, but without ulceration. The change of structure affected the left arch of the palate, and extended deeply into the substance of the organ. The aperture between the mouth and pharynx was considerably contracted. The glands beneath the jaw were not at this time enlarged. She complained of a sense of tightness and fullness about the upper part of the throat, and the nose felt as if stopped up; she was unable to swallow solids; her breathing was difficult, and during the night she often felt as if suffocated, and was obliged to sleep with her mouth open. Her articulation was imperfect; she suffered but little pain, but complained of a sense of fullness and tightness in her head; her appetite was impaired, and her bowels costive: she was thin and emaciated. Opiates were given at night, and the bowels kept open by the extract of colocynth. Nourishing fluid diet, and port wine. The difficulty of breathing and sense of suffocation gradually grew worse; fluids were swallowed with difficulty; she became more restless at night, and more emaciated. The enlargement increased and extended into the fauces, and two or three glands in the neck swelled.

Jan. 9. She complained of great pain in her stomach, shortly after which she vomited and coughed up about two pints of fluid red blood; she was nearly suffocated, and her extremities became cold. Opium was administered, and warm bottles applied to the feet. No further bleeding took place, and she continued in much the same state as before, until Sunday, Jan. 13th, when she was suddenly taken with vomiting of blood; the house surgeon, Mr. Weekes, was immediately sent for, but before he reached her, she expired. About a pint of fluid blood had been vomited.

Examination Thirty Hours after Death.

The loose portion of the tongue scarcely exceeded its natural size, although it was pushed upwards against the palate, and projected backwards, so as to press on the larynx and pharynx. Hence, the motions of these parts were impeded, and mastication, deglutition, and articulation, were executed imperfectly and with difficulty. A large mass of genuine scirrhous structure occupied the principal part of the interior of the tongue, its growth having filled up the space between the rami of the lower jaw, and forced the tongue upwards and backwards in the manner already described.—The disease extended across the middle of the tongue, nearly to its right side, and downwards amongst the muscles of the basis for about two inches. It was covered by the muscular substance of the organ, except at the left side, where it formed a hard tubercular prominence, jutting into the space left by the removal of the teeth, but not ulcerated. It was a dense unyielding texture, sounding under the edge of the knife, of a light yellowish grey colour, and finely striated; nearly resembling, on the whole, scirrhus of the female mamma. Its circumference was irregularly blended with the muscular fibres, not marked by a defined edge. The left tonsil and palatine arch were thickened, indurated, and in a state of foul ulceration, while the corresponding course of the os hyoides, denuded of its periosteum, projected from the surface of the ulcer. When these parts were more carefully examined, an artery as large as a crowquill was seen remaining in the tonsil towards the ulcer, in which it ended by an open orifice; thus, the source of the two bleedings was explained. Two or three absorbent glands at the side of the neck were diseased; one of them was enlarged and scirrhous; in another, lower down, the change of structure was incipient and partial. A considerable quantity of blood had passed down the œsophagus into the stomach, and the trachea, with its ramifications, was filled with coagulum. In some places the blood had passed into the air-cells, which were seen as if injected with it. On cutting into the pulmonary substance, the lungs were remarkably healthy, and merely exhibited a mottled bloody stain in the few spots where the air-cells had been thus injected. In all other parts they were full of air, the escape of which was prevented by the blood in the air passages; hence, when the chest was opened, the lungs did not collapse, but rather protruded at the aperture.

Mr. Lawrence observed, that the dissection of this case afforded a valuable practical lesson, showing, that although disease may seem confined to a small portion of the organ externally, it may extend so far within, as to render attempts at extirpation hopeless. He had seen two cases in the last year, in which disease had returned and proved fatal, after the apparently complete removal of the scirrhous part. There was not, however, much swelling or hardness in the original seat of mischief, nor any ulceration, but the patients were destroyed by scirrhous swellings under the jaw and at the side of the neck, proceeding at last to an immense size, and obstructing deglutition and respiration. They both perished after excessive and protracted sufferings, from which the present patient escaped by the ulceration of the artery in the tonsil.

DEEP-SEATED INFLAMMATION OF THE ORBIT, AND PROTRUSION OF THE EYEBALL;

Morbid growth behind the Globe, and destructive Inflammation of the Eye; Extirpation of the Orbital Contents.

John Banting, ætat. 30, was admitted into Henry's Ward, April 4th, 1827, under the care of Mr. Lawrence. He came from Brighton in an open cart in one of the coldest days in January, and suffered severely in the journey; his left arm and leg were quite benumbed, so that he could not move them, and he did not recover the use of them for three or four days. At the same time he experienced pain in the left eye; in about a fortnight after his journey from Brighton, the eyelids swelled, and the lower lid at the same time became everted, and the conjunctiva between it and the globe swelled up, according to the patient's description, like a bladder. He had distracting pain in the eye and whole side of the head, and was in constant agony night and day, so that he got no rest until he was completely exhausted by suffering. During this time he was cupped in the left temple, had leeches applied about the eye six or eight times, and had the head shaved and blistered, with only partial and temporary relief. The sight became imperfect a month before his admission into the Hospital, when he came under the care of Mr. Vincent, who punctured the tumid conjunctiva, without giving issue to any matter. Mr. Vincent requested the opinion of Mr. Lawrence on the case, and, after consultation on it, expressed his desire that Mr. Lawrence would take charge of the patient.

April 4. The eye-ball is pushed forwards and a little upwards, projecting, by comparison with the other, about three fourths of an inch. The upper lid, which is slightly inflamed, is protruded in an equal degree; the patient is unable to elevate it, and it cannot be drawn up sufficiently to expose the cornea without difficulty. The lower lid is everted by a considerable swelling of the conjunctiva, which is red, and loaded with serous effusion. This swelling has existed from the beginning of the affection; the patient says that it was then larger, and appeared like a bladder of water. The redness extends to that portion of the conjunctiva which covers the lower part of the globe. The rest of the conjunctiva oculi having its natural paleness. No change is observable in the globe; the iris moves freely, but vision is very imperfect; he cannot see even large letters. A firm swelling, without any fluctuation, is obscurely felt within the inferior margin of the orbit; there is still considerable pain, although much less than before. Mr. Lawrence considered it to be a case of abscess deeply seated in the orbit; the severe pain indicated acute inflammation and suppuration. the tumefaction accompanying such an affection would cause displacement of the globe, and the latter would account for the imperfection of vision. In conformity with this opinion, Mr. Lawrence made a puncture through the skin at the lower and outer part of the orbit, carrying a double-eged knife more than an inch deep, in the situation of the firm swelling, and moving it laterally with some freedom, no pus followed. Bread poultice; opening medicine daily; milk diet.

10. The wound began to discharge pus copiously three days after the puncture, and that discharge continues; a probe passes in, to the depth of one inch and a half. The pain is quite removed; the tension of the globe and the swelling of the lids lessened, and the sight improved.

28. There is a continued copious discharge of matter; the upper lid can be elevated, so as to expose the cornea: he can read small print. Remaining nearly in the same state, he left the Hospital on the 3d of May, and attended occasionally, that the progress of the case might be observed. After some time, the eye became rather painful, and he was re-admitted on the 25th of May.

The partial protrusion of the globe, the red œdematous swelling of the conjunctiva, and the purulent discharge from the puncture, remain as when he left the Hospital. A probe passes into the opening about two inches, and can be moved in different directions. Pressure on the eyeball forces out matter from the puncture. There is a firm swelling below the edge of the orbit, leading to a suspicion that the antrum is affected; the cheek and left half of the lip feel benumbed. Leeches have been applied two or three times, and a poultice is continued. He takes aperient and alterative medicines. On carefully examining the part with a probe, bare bone was found at the bottom of the orbit, and the patient then began to have discharge of matter into the left nostril; since that, he found, in blowing his nose, that air was forcibly expelled through the puncture, and he shows the fact without trouble or uneasiness.

August 6. Since the last date, the puncture under the lower eyelid has closed; there has been occasional discharge of matter into the nostril. He has suffered considerably from pain behind the orbit, and on the side of the head, the inflammatory symptoms in the part being rather increased. For these, leeches have been several times applied, generally with temporary benefit. A fortnight ago, a fresh and deep puncture was made into the orbit, just behind the external canthus; there had been a previons increase of swelling and redness about the eye, with great constant pain, and a rather deep-seated hardness was felt, in which, however, no fluctuation could be distinguished. This puncture, in making which the instrument was carried nearly two inches deep, went into the cavity formerly exposed; a few small granules passed out with the blood, but no distinct matter. Air passes out of the opening on blowing the nose, as it did in the former case; the probe goes deep into the orbit, and bare bone can be felt with it towards the lower part. A tolerably free discharge has taken place from this opening, and there was at first some relief, but the pain has returned, and the redness and swelling of the lids, with the œdematous protrusion of the conjunctiva over the lower (particularly the latter) are as great as ever. As the painful symptoms continued, in spite of repeated abstraction of blood locally,—as the discharge had ceased, and the wound healed,—and, as a firm, rather prominent, substance could be obscurely felt towards the margin of the orbit, it was thought advisable to cut down on this part, with the intention of removing it, if any distinct tumour should be found. The external commissure of the lids was, accordingly, divided, and a small piece of indurated substance removed, without any adequate cause of the symptoms being discovered. He continued suffering very severely from pain about the orbit, and side of the head; and numbness of the cheek and jaw, with increased redness of the eye and lids, and greater protrusion; these symptoms being only mitigated in degree by local bleedings and narcotics. The protrusion of the globe was now more than an inch; the pupil largely dilated, the iris motionless, and vision lost, except the mere power of discerning a large object, or distinguishing light from darkness.

The protrusion slowly increased, the vessels of the conjunctiva became more turgid, and the general redness of this membrane was greater; the pain in the surrounding parts continuing, so as nearly to prevent rest. In November, the conjunctiva of the globe, which had hitherto remained nearly natural, became of a deep red, while the cornea, at the same time, inflamed, lost its transparency, ulcerated, and then sloughed. The humours of the eye and some blood escaped when the dead part separated, and the iris protruded, so as to form an irregular dirty-looking mass, with a depression in the centre.

Mr. Lawrence observed, that the destructive inflammatory, ulcerative, and sloughing process of the cornea, with escape of the humours which the eye had undergone in this case, resembled what Magendie had described as the consequence of dividing the nerve of the fifth pair in animals; and was probably owing to an analogous cause, as the morbid growth which caused the protrusion must certainly have compressed, or otherwise injured, the ophthalmic branch of the nervus trigeminus. The evacuation and subsidence of the globe did not diminish the patient's sufferings, nor the external swelling, which, on the contrary, still increased.

As the complaint had now been progressive for many months, in spite of active treatment, both local and general, and as the health, although in other respects perfect, was suffering under the constant severe pain, Mr. Lawrence determined, with the concurrence of his colleagues, and of several other gentlemen who had seen the case, to remove the contents of the orbit; the patient feeling persuaded that the operation afforded him the only remaining chance of relief, and being, therefore, not only willing, but desirous of submitting to it. Accordingly it was performed on Thursday, December 6th. The palpebræ were freely separated at their external commissure, and then turned aside, so as to expose fully the anterior aperture of the orbit, the entire contents of which were detached from the cavity, by dissecting close on the surface of the latter, first below, then above and at the sides, until the posterior connexion alone was left. The latter was then divided by a knife, curved on its flat surface, the patient appearing to experience excruciating agony at the moment of dividing the muscles and nerves. The mass, which was firm and almost hard, completely filled the orbit, so that the dissection was necessarily carried close to the bone, and performed slowly. As the ophthalmic artery bled profusely, a conical compress of lint was introduced into the orbit, and held for some time on the vessel; this was removed in the evening, as Mr. Lawrence objects strongly to the introduction of any foreign body into the cavity after this operation. The divided commissure of the lids was united by two sutures; and the tumid upper eyelid closed the front of the orbit. He took thirty drops of laudanum at night.

7. He slept at intervals, and passed a comfortable night; bloody fluid had oozed between the lids, but there had been no actual bleeding. The palpebræ are swollen and bright red; the face is flushed, and he has slight headach, thirst, and foul tongue. Twelve leeches around the margin of the orbit. Saturnine lotion; a dose of calomel and jalap. The inflammatory and febrile symptoms had disappeared on the next day, and the pain of the brow, head, and cheek, which had distressed the patient for so many months, was almost gone. Recovery now proceeded rapidly and uninterruptedly, the surface of the orbit granulating, and producing a vascular substance, which filled up a large part of the cavity; rest and appetite returned, while meat diet speedily restored flesh, strength, and good looks. He was discharged quite well on the 28th December, but has shown himself at the Hospital in perfect health within two or three days.

The right eye, which had been sympathetically affected before the operation, is now as strong as ever. During the progress of the disease in the left, the right had felt weak, and occasionally painful on exercise, so that he could not use it freely.

The mass removed from the orbit consisted of the collapsed and shrunk eyeball in front, with a hard and incompressible substance behind, extending to the point at which the nerves and vessels had been divided. The recti muscles, unaltered in appearance or texture, covered this substance, the exterior of which had the usual appearance of the orbital fat, except that it was more dense. An incision was carried from before backwards, directly through the centre of the entire mass. An apparently recent coagulum of blood separated the sclerotica from the choroid coat, the latter, with the retina, being compressed by the coagulum into a thick cord, extending from the optic nerve to the iris; there was no trace of humours; the sclerotica was natural; the morbid growth adhered to it closely behind, and the optic nerve proceeded through the centre of the mass. The latter was a dense compact structure, of schirrous firmness, resisting the edge of the knife; its exterior consisted of a light grey texture, very much like that of a scirrhous breast, while in the interior this was intermixed with a light yellow, yet firm substance, resembling what is seen in scrofulous diseases.

Mr. Lawrence observed, that he used the expressions "scirrhous firmness" and "scirrhous structure" merely to describe the character of the morbid production, and not to convey an opinion that it was of a carcinomatous nature. He did not entertain the slightest apprehension that disease would return; yet, on reviewing the history of the case, and comparing with its course the bulk and texture of the morbid growth, he was satisfied that the latter would have continued to enlarge, and the sufferings of the patient would have continued to increase, had the disease been left to itself, so that the operation must be considered to have been absolutely necessary.

Mr. Lawrence considered this, in the first instance, as common inflammation and suppuration, and he originally entered it in his case book as "deep-seated suppuration in the orbit." The symptoms corresponded in all respects to those of the few instances which he had seen of abscess in the orbit. He would not have expected, *a priori*, that a common cause, namely, long exposure to severe cold, would produce in a healthy young man a diseased growth similar in external character to the malignant changes of structure.

According to the usual arrangement of diseases, this case would come under the indefinite term of *Exophthalmia*, under which all affections, whether of the globe itself or of surrounding parts that cause displacement and protrusion of the eye, are jumbled together. No diseases ought to be named from such a circumstance as this, which is merely an effect or symptom. If the name be, however, retained, we should observe the distinctions made by the German ophthalmologists. When the eye is merely protruded, and not altered in any other respect, they call it *exophthalmos*; if the displaced eye be inflamed, they term it *exophthalmia*; when the eye falls out of the orbit, in consequence of its posterior connexions having been divided, or from paralysis of all its muscles, they call the case *ophthalmoptosis*. Mr. Lawrence has never seen the latter occurrence.

ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—On all disputed doctrines in medical science, it seems desirable to obtain information from competent practical persons, *whether their mode of treatment has been successful or not*, because their failures as well as their success must convey valuable information. Under the influence of this impression, I offer you my unvarnished contribution towards an elucidation of the nature, and the best mode of treating, erysipelas. I have found this disorder exceedingly prevalent in this district, and I account for this frequency from three concurrent causes: the occupation of the inhabitants, which is almost wholly in spinning or weaving cotton in mills at a temperature of about 75° Farenheit; the climate, which is generally very damp, with frequent cold winds, the natural results of a deep dale in the mountainous region of the Peak, and the many thousand acres of moorland surrounding us on all sides; and lastly, the food, which for the most part consists of viands that disorder stomachs that are not very vigorous. The practice I find most efficient leads me to consider erysipelas as wholly symptomatic, and that it always depends on some derangement in the chylopoetic system; and, whether the disorder assume the red, shining, burning character, or the yellowish hue, and peculiar œdematous aspect, and whether accompanied by vesicles or not, or preceded by, and therefore seeming to be caused by wounds, the principle of my practice is the same, and this is to clear out the passages with all convenient dispatch; and for this purpose the following medicines are generally used:

℞ *Pulv. ipecac.* ℈j. *ft. emetic. imprimis sum.*
℞ *Pil. hydr. gr.* x. *horá somni sumantur. vel,*
℞ *Subm. hydr. gr.* vi.
Pulv. jalapæ, gr. viij.
Syrupi, q. s. ft. bol. h. s. sum.
℞ *Magn. sulph.* ℥i.
Sodæ carbon. ʒi. *ad.* ʒii.
Aq. menth. p. q. s. ft. ℔ss. *M. fiat mistura, sum. cochlearia* ij. *4tá q.q. horá.*
℞ *Plumb. superacet.* ʒss.
Aqua distill. ℔j. *ft. lotio,*

to be applied constantly to the part in the more acute erysipelas, but if instead of the shining, burning, and red aspect of the parts they assume the yellow hue and œdematous swelling, with probably small vesicles, the following lotion is substituted, but in other respects the treatment is the same :

℞ *Liq. ammon. acet.* ℥ij.
Spt. vini R. ℥i.
Aq. distillat. q. s. ft. ℔j. *M. ft. lotio.*

the parts to be frequently bathed with it. It is often necessary to repeat the pil. hydr. two or three successive nights, the bowels being kept open by the alkaline aperient; in severe cases I have given the pil. hydr. twice a day; rarely has it been necessary to bleed, and I have never had recourse to scarifications of any kind, nor has matter ever formed under the integuments. In one extreme case, where the head, and successively every part of the body was involved in the disease, I varied the practice, and often in the use of evacuants and bleeding I employed cinchona and liq. am. acet. in full doses every four hours. Only one fatal case of erysipelas has occurred in my practice during my residence in this district; in which time, I think, at the lowest calculation, I have had more than fifty cases, and in the solitary unfortunate case, I have no doubt the result was wholly the effect of neglect.

In conclusion, I beg, Sir, to be understood as only submitting my practice, and the results, to the consideration of your readers. I presume not to think myself competent to say, how in all cases the disorder should be treated, because I doubt not that peculiar occupations, locopositions, atmospherical peculiarities, and vicissitudes, will all modify the affection, and may therefore require other means than those I have found so efficient.

I am, Sir,
Your obliged and most obedient servant,
PAUL SLADE KNIGHT.

Glossop, Derby, Dec. 31, 1827.

THE LANCET.

London, Saturday, January 26, 1828.

IF the violation of justice always implied a breach of the law, we should have little difficulty in proving the illegality of the exclusion practised by the Dublin College of Surgeons, after what has been advanced on the iniquity of that usage. Though this supposition is not invariably true, yet we conceive we shall be able to show that the College cannot plead in its defence the usual apology of " summum jus summa injuria ;" but that, to a contempt of equity, it has added a wilful infraction of its own statutes. To reduce this charge to a more demonstrative form, it will be necessary to examine the spirit of that clause of the charter, which it has assumed as a justification of its conduct ; its literal meaning, as interpreted by the common sense of the medical profession ; and the precedent established by the very founders of the College. For the accomplishment of the first of these intentions, a statement of the circumstances under which the College charter was conferred, presents, perhaps, the best means ; but of these circumstances we cannot speak from personal observation, nor does any written record remain, from which information on the subject could be derived. Tradition, however, which is quite sufficient for our purpose, in a matter of such recent date, represents the condition of the surgical profession in Ireland of a most anomalous character, antecedent to its incorporation. It was composed, in short, of the most heterogeneous materials ; of many who served apprenticeships, and of more who never had a master ; of persons who had licenses, and of others who practised by a sort of hereditary right, deduced from their fathers ; of the members and graduates of every College, British, Scotch, and continental ; of individuals, in fact, who acquired a knowledge of their art in every manner and place in which information could be collected, and a faculty for its practical application in every shape in which diplomas were granted at the time. It was for the legal qualification of this miscellaneous mass of practitioners, as a security to the public against empiricism, that the present charter of the College was partly granted: and now, we ask, could any king or legislature, knowing the state of the community on which this charter was to operate, have intended that it should exclude the majority from the possibility of complying with those conditions, for the fulfilment of which it was obviously designed? Of the circumstances of the profession, the government could scarcely have been ignorant; and if they were, the conduct of the founders of the College must have completely dispelled all doubt from their minds on the subject. For, how did the latter commence the formation of the College? The assertors of exclusion, and the excellence of the indenture system, would, of course, reply, by at least selecting, as the first members of the corporation, such practitioners only as had served an apprenticeship, and possessed a legal qualification from some other College. Now, this was not the plan adopted by the originators of the Irish College; they followed a much more simple process in the composition of the embryo establishment. Instead of making a selection from the indentured and licensed portion of their surgical contemporaries, they simply opened, we believe, a subscription, by the payment of which any practitioner, no matter how or where educated, became, by virtue of his donation, a member of the intended institution; and there are, or were very lately, surgeons of some eminence in Dublin, who thus became members of the first establishment, without having previously obtained a license, or subsequently undergoing any examination whatever. We have here, in the conduct of the very founders of the College, arrived at another proof, that exclusion formed no part of the spirit of the charter; and that, however it may have been worded, the mere serving of an apprenticeship was the only condition which it required from the candidate to be admitted to an examination. To assume conclusions contrary to those which we have deduced from the preceding facts, would be to accuse the legislature of the folly of enacting a law, which must have defeated its own objects, and the founders of the College of the inconsistency of intending to supply all Ireland with surgeons by their own apprentices, the first crop of whom would not, of course, be matured for service sooner than five years! If we turn to the literal meaning of the disputed clause in the charter, we shall find it as incapable of ambiguous interpretation, as its spirit is of being misunderstood. The words of the charter are, "that the censors and president, or vice-president, shall examine every person who has served an apprenticeship to a regularly-educated surgeon, and who intends to become a member of the College." Let us suppose a jury of English, Scotch, French, German, or Italian surgeons, called on to decide the literal meaning of these words:—what would be the verdict? Would they declare that in the whole world, there was not a regularly-educated surgeon without the pale of the Dublin College of Surgeons; and that, according to this perverted clause of the charter, none but their apprentices were entitled to an examination? By such an interpretation, they must, of consequence, cut off the most eminent practitioners and writers in the profession of surgery, from the honour of being considered as regularly educated, and deprive them of the right of educating others. But in what, it may be asked, does a "regularly-educated surgeon" consist; or can any person help us to a definition of that *rara avis* peculiar to Ireland? Our reading does not supply us with any such definition, nor do we believe that one has ever been given; and for the simple reason that mankind, and writers on medical education, have justly considered every surgeon, competent to a discharge of his duties, as regularly educated, no matter how or where he acquired his knowledge.

The College of Dublin, however, does not stop at the mere absurdity of refusing examinations to the pupil of a surgeon, whom the public look on as both qualified to practise and teach the art of healing; it transcends the bounds of time and reason, and requires that the master himself, and the master's master, and all his professional ancestors, should have been regularly educated, or in other words, have served an apprenticeship. It is obvious, that if this doctrine were fully enforced, it must annihilate the College itself as a corporate body, and deprive it of the power of examining even its own pupils; for not one of its present members, as we have shown, could establish a claim to a "regular education" by descent, higher than the establishment of the institution. To obviate this objection, the College has adopted the happy expedient of a double interpretation of the obnoxious clause of the charter, one of which it applies to the cases of aliens, as they may be called; the other to its own apprentices. Thus, when one of Mr. Cusack's apprentices presents himself with his papers, the Court of Censors never demand a higher pedigree than an indenture to that gentleman; but when the pupil of any other surgeon, not of the College, seeks an examination, the doctrine of hereditary education is called into action, and the applicant is first compelled to furnish, on oath, the qualities of all his surgical forefathers, and then, like Mr. Leslie, dismissed, as not having made good his title. The object of this double interpretation it is almost superfluous to point out, being merely to secure apprentices to the members of the College. From these few observations, it is evident that the College has violated the spirit of its charter, and tortured its literal meaning into a pretext for the accomplishment of purely selfish purposes; and that it has done so, not in ignorance of the true sense of this clause, the fact of having consulted Mr. (now Baron) Plunkett on the subject, who gave an opinion contrary to the one acted on by the Court of Censors, is a sufficient testimony. Dr. Macartney, of Trinity College, against whose apprentices the clause was especially enforced, also, we believe, took the advice of the law authorities on the question; and the result was, that he posted up in the passage to his lecture-room, the words we have quoted from the charter, if rightly informed, with an explanation to the effect, that the College could not legally refuse an examination to the apprentice of any surgeon. In the case, too, of Mr. Gregory, which was agitated for some time in the Court, the College was obliged to concede his claims, though they were not considered entirely satisfactory. In fact, there is not one of the members of the College who does not acknowledge, individually, that the exclusion is illegal; yet this conviction does not, it seems, prevent them collectively from undertaking an expensive law-suit in support of a system which, to complete the measure of their inconsistency, they themselves are in part about to abolish, by the indiscriminate admission of all candidates to an examination. In what light their Lordships of the King's Bench may look on such a palpable contradiction, or what their decision may be in the case, we will not presume to anticipate; but we hope we shall have to congratulate the College on its defeat, as we sincerely believe that its success would be highly detrimental to its true interests, and the advancement of surgical science in Ireland.

If any portion of that love of science and spirit of inquiry, which led to the establishment of the Veterinary College, existed amongst its present Governors, we are inclined to believe, that the unfortunate pupils who now attend there would feast on a very different repast than the one now submitted to their intellectual appetite. Of Mr. Coleman's capacity for discharging the arduous duties of teacher, we certainly entertain a very humble opinion; but as the students are *compelled* to enter to his lectures and the Veterinary practice of the College, before they can obtain their diploma or certificate of qualification, it is not right that they should be prevented from hearing the one or seeing the other, unless from some uncontrollable cause. These remarks are elicited from us, in consequence of the manner in which the affairs of this Institution have been conducted during the present session, and at which, without exception, the students, we believe, feel dissatisfied, disappointed and indignant. The attendance at the stables, by the Professor and his *Sub*, is of the most irregular description; and scarcely an observation of the least practical importance, on any case submitted to their notice, is ever heard to drop from the lips of either. Mr. Coleman professes to deliver a course of lectures, which we regret to say, he is incapable of accomplishing, from frequent attacks of gout, that confine him to his bed. It may be well, and is, without doubt, just, "that the sins of the father should be visited on the children," but there is no authority for showing, that the misfortunes of Mr. Coleman should be inflicted on his pupils. If Mr. Coleman be incapable of delivering his lectures, it is his duty to provide a person who is capable of executing that office, which, we believe, is not one of a very arduous description, consisting only of reading an old manuscript, written some twenty-five or thirty years ago. Of course, we place no value on the doctrines taught by Mr. Coleman; but as the pupils must exhibit some knowledge of them, before they can obtain their diploma, it is an act of gross injustice to withhold from them the only means by which these can be acquired. Mr. Coleman cannot plead poverty as his excuse for not obtaining the necessary assistance, as his income cannot amount to less than *three thousand pounds* a-year; besides, is there not a sub-professor, who also delivers lectures on his own account, at a charge *distinct* from that of the professor? Surely, when this gentleman was appointed to his office, it was intended by the Governors that he should occupy the chair of his superior when vacant from illness or any other cause. So that the current of information might not be abruptly checked, and the student be thus deprived of the only supposed advantage sought for in his attendance at this institution. We beg seriously to call the attention of the Governors to the subject, and can assure them with much confidence, that if they carefully and strictly investigate the medical department of their College, they will discover more of corruption, negligence, and imbecility, than they can believe to exist, from a mere superficial examination.

FROM the specimens we have recently had of Mr. EARLE's want of judgment, perception, and candour, we almost look upon his name as a blot on our pages, and write it with disgust; but as Mr. Earle pretends to be a stickler for morality, we recommend him, instead of attempting to poignard a "foreigner" in a poor man's abdomen, by plunging a trocar into his gut, and instead of falsely charging us with having wilfully "falsified" the reports of his cases, to look to his own broken promises to the students, and thus remove "the beam from his own eye," before he attempts to pluck the "mote" from that of others. The prospectuses of the St. Bartholomew's school delivered to the students in September and October, contained the following announcement:—

"CLINICAL LECTURES

BY HENRY EARLE,

SURGEON TO THE HOSPITAL."

And the bills just issued for the second act of the session, contain a similar announcement. Now we beg to ask of this chattering cock sparrow, whether he has delivered *three* clinical lectures during the present season? We are informed, indeed, that he has not delivered ONE.

Before you again charge us with publishing "false reports," look, little Harry, to your own false promises to the deluded and plundered student.

RODERICK MACLEOD'S POETRY.

Roderick Macleod, who, with the true tact of a modern Athenian, took a Greek poem on astronomy for an anatomical treatise, has been trying his hand at English poetry. Let the reader figure to himself a bear in a boat, a dancing Cyclops, a cow in a drawing-room, a Dutch bargeman aspiring to be graceful, or a Scotch sow essaying a hornpipe, and he may then form some notion of poor Roderick attempting to be poetical. The *bourgeois gentilhomme* in MOLIERE, on being made sensible of the difference between prose and verse, is delighted to find that he had been all his life talking *prose*. Poor RODERICK's is a more hopeless case; he is not only as ignorant of the distinction between prose and verse as MOLIERE's *bourgeois*, but he is evidently incapable of ever apprehending the distinction. But if RODERICK is in a worse condition than the *bourgeois* in this respect, he has the advantage of him in another; for, as no difference can be detected between RODERICK's poetry and his prose, he may solace himself with the persuasion that he has been all his life discoursing *in verse*. MACLEOD's poetry in the Yellow Excroscence reminds us of some lines to the memory of Shenstone, written by M. Girardin, a Frenchman, who had acquired, like RODERICK, a smattering of the English language, and who had the simplicity, like RODERICK, to suppose that he could write English verses. The following was the Frenchman's composition, which, to say the truth, is as successful an attempt at English poetry as any thing produced by MACLEOD.

This plain stone
To William Shenstone;
In his writings he displayed
A mind natural
At Leasowes he laid
Arcadian greens rural.

These lines furnish a good illustration of the hazard of attempting to write poetry in a foreign language; and assuredly the language of the Muses, as well as that of sense or science, is foreign to RODERICK MACLEOD.

BRODIE AND JOE BURNS.

"IT is my intention," said BRODIE, addressing himself to that facetious personage, JOE BURNS, "to write a monograph; and I wish, JOE, you would help me to a subject that nobody has ever written upon before, and that nobody will ever think of writing upon hereafter." JOE paused a moment; cast a sly leer at the querist, and, imitating the 'eminent surgeon's' raw, provincial accent, rendered more dissonant by his awkward attempts to make it pass for an agreeable dash of Doric, replied, "I advise you to write *your own panegyric*."

TRANSLATION OF THE GREEK EPITAPH IN OUR LAST NUMBER.

To the Editor of THE LANCET.

SIR,—Permit me to offer a translation of the Greek epitaph which appeared last week in your Journal. One word in it—the name of the lithotomist—was not very clear in my copy of THE LANCET, and not knowing exactly what to substitute, I at first took a poetical freedom with the name of my old favourite BEN JONSON. Any other dissyllable, however, will do as well as JONSON; and as some of your readers may suggest a better, I have left a space to be filled up by the imagination, or by the *memory*. As for the monosyllable in the last line, it is essential to the pith of the epitaph. I won't part with BEN, Mr. Editor,—I can't spare BEN; for, in the first place, the *verse* is made, which is a better reason than the celebrated one of the Abbé VERTOT; and for a *raison de plus*, I should have no difficulty in showing, that BEN is far more neat and *appropriate* than JOE, TOM, DICK, or any other monosyllable that could be substituted for it.

I remain, Sir,
Your obedient servant,
THOMAS HILL.

EPITAPH.

Here lies a youth; and why the youth lies here,
Since ——— cut him for the stone, is clear.
Uncut, the youth from all disease was free;
The stone BEN cut for, is the stone you see.

CORONER'S INQUEST ON JAMES SMITH.

To the Editor of THE LANCET.

St. Mary-le-bone Infirmary,
Jan. 22, 1828.

SIR,—The statement of a part of my evidence before the Coroner, as published by you, in your Journal of last week, and which was copied from the *Times* of January 12, is incorrect; and consequently, your observation "ignorantly answered," is false.

No such question as the following was put to me:—

Coroner—"If any narcotic poison had entered the stomach, would it not have caused the deceased to vomit:"

Witness—"Certainly it would."

I am, Sir,
Your humble Servant,
WM. F. GOODGER.

The discreet and gentlemanlike tone of the above communication cannot fail to strike our readers. Our opinion of Mr. Goodger's ignorance was, of course, contingent upon the accuracy of the report in *The Times*; but, as the columns of that Journal were, no doubt, open to Mr. Goodger, for the correction of any misrepresentation, it is a little singular, and somewhat unfortunate for this gentleman's reputation, that he should not have disavowed the testimony ascribed to him, until we felt it our duty, as Medical Journalists, to comment upon the ignorance which that testimony would have established.

UTILITY OF MR. BRACY CLARK'S EXPANSION SHOE.

To the Editor of THE LANCET.

SIR,—The interest which you have taken in the subject of expansion shoeing, induces me to request the insertion of the inclosed letter. With many thanks for the assistance you have afforded in so many instances to the neglected art which I profess, I beg to subscribe myself

Your constant reader,
CHARLES CLARK.
Sidmouth Mews, Gray's Inn Lane.

"36, Stamford St. Blackfriars,
Dec. 31, 1827.

DEAR SIR,—I feel happy in bearing testimony to the very great advantage of your Expansion Shoe, over that of the common one, which has been proved in the following instance. My thorough-bred horse, Napoleon, became very much contracted in the feet, in consequence of having been kept shod for two years and a half, (mostly in the stable,) without being used, during the time I was confined in Ilchester gaol; at this time he was rising six years old, and having done but very little work, in all other respects he was quite in his prime. Finding that from the numbness of his feet he became unsafe to ride, and unpleasant to drive, in consequence of very severe cutting, I was induced to send him always to the Veterinary College to have him shod; still he got worse and worse, his fetlock joints became much enlarged and callous, from the constant battering of his feet against his legs, and in spite of the wadded boots which he constantly wore, he seldom returned from his work without his legs being in a gore of blood, and at length, by the *speedy cut*, he became so lame as to be totally unfit for use; being a favourite, I sent him repeatedly to the Veterinary College, where he remained for a month or six weeks at a time, without obtaining the desired relief, and Mr. Sewell recommended me to dispose of him as useless. Accident threw me in your way, and you recommended the Expansion Shoe, which was immediately tried with success; before he had worn the first set of shoes half out, he was so much relieved as entirely to get rid of the cutting. He has been now shod with your expansion shoe twelve months, during which time he has been in constant work in my vans over the stones in London, has never cut since, and is now as sound and with as good feet as he had when he was three years old, and instead of being totally useless, he is now, (solely owing to your shoeing) the most useful and valuable horse I have.

I am, dear Sir, yours very sincerely,
HENRY HUNT.

P. S. When I related this case to Mr. Sewell, he admitted that the expansion shoe was the perfection of shoeing, if it could be made to keep on as well as the common shoe. In this you have now completely succeeded: since you have shod my horse, I find the shoes remain on firm till they are worn out, although my horse goes over the stones of London, with a heavy load, four days in a week on an average, from twenty to thirty miles a day. The shoes he has on now, have been in wear upwards of five weeks.

Our own experience of the advantages arising from the use of the EXPANSION SHOE over the common one, is equally conclusive and satisfactory with that of Mr. HUNT, and more than warrants all that we have advanced in favour of Mr. BRACY CLARK's principles of shoeing, founded on his discoveries of the structure of the horse's foot.

A correspondent has favoured us with the following witty prospectus.

"NEW MEDICAL JOURNAL,

On improved Principles.

THE public are respectfully informed, that on Saturday, January 26, 1828, will be published, the first number of a new Medical Journal, to be entitled,

THE ACTUAL CAUTERY.

The great object of the associated editors, is the earliest possible dissemination of '*sound medical* and *chirurgical* knowledge' throughout the universe; and all contributors may rest assured, that within ten minutes of the first discovery of any fact in medicine, surgery, and the collateral sciences, it shall be put to press, and with all possible haste made known to the public.

The office will be open at all hours for the reception of communications, and the clerk is directed to note carefully, by a stop-watch, the minute at which they are received, in order to ensure to gentlemen the priority of their discoveries.

The name of this Journal will be a sufficient guarantee to the public at large, of the determination of the editors to spare no individual in any department of the profession. They will, however, not be answerable for libels, in a court of law, but have engaged, at a high salary, a gentleman from the sister kingdom, to give all other satisfaction that may be required. Another object of this Journal, is to develop the latent causes of the present convulsed, and distracted state of the profession in this country, on which point the medical world have of late been most grossly misled.

Attached to no party, tools of no junto, organs of no faction, actuated by the purest public spirit, disdaining all reward, save the gratitude of posterity, the determination of the editors is to outstrip the '*March of Intellect*,' to set at rest every disputed point in medicine, and to reduce the science to mathematical certainty.

One of the new features of this Journal is, that each number will contain at least *two* leading articles; the reviews will be spirited; no epigram will be inserted that has not *some* point; and the lives of eminent practitioners will be given, as soon as they are known to be '*in Articulo Mortis*.'

Correspondents have been engaged, at a great expense, in all parts of the world, except '*Otaheite*,' where arrangements will be shortly entered into with the most distinguished *Fellows* of the Royal College of Physicians in that country.

N. B. The Journal will be published regularly on Saturday mornings, but may be had in all the shops on Thursday, at 2 o'clock. Members of parliament are engaged to frank for country circulation.

P. S. The different colours of the rainbow being already occupied by publications pretending to similar character, the present Journal will appear alternately in a black and white cover, to imitate which will be deemed '*literary plunder*.'

The unsold copies of this Journal, bound in calf, at the end of the year, will be distributed among such of the correspondents as have favoured the editors with the longest reports, cases, essays, &c. &c. during that period of time.

⁂ All communications, for the present, to be addressed to MONSR. TONSON, at our office, *Warwick Street*, Golden Square."

A Treatise on the Cutaneous Diseases incidental to Childhood, comprehending their Origin, Nature, Treatment, and Prevention. By Walter C. Dendy, Surgeon to the Royal Infirmary for Children, &c. 1827. Churchill, 8vo. pp. 289. London.

When we consider the truly Protean character of diseases of the skin, an arrangement which tends to simplify the study of them, will, in the present state of our knowledge, be regarded as desirable. In a practical view, it is not sufficient that a classification consist merely of a batch of hard names, however classical may be their derivation, or however expressive they may be of the simple character of disease. There is something more than this required of the practical nosologist: his arrangement should essentially aim to bring together those diseases which originate from identical or analogous causes, consisting in a similar condition of parts, occurring in individuals of similar coustitutions or temperaments. It would, hence, not be very difficult to adopt one general principle of treatment for diseases combined in one division, however certain circumstances may require a modification of internal remedies, or a variation in topical treatment. To this end we think the arrangement of Mr. Dendy, which in some parts does not essentially differ from his contemporaries, is as concise and simple as the varieties of the diseases of which he treats, will allow. The first part of the work consists of an introductory essay on the importance of the study of cutaneous diseases, on the danger of injudicious and empirical treatment, and on the pernicious consequences of self experiment, especially among females of rank. These observations are succeeded by a section referring to the prevention of cutaneous disease; comprehending directions with regard to aliment, laxatives, ablution, &c., and the essay concludes with a brief chapter on the anatomy and physiology of the skin. On perusing this portion of the work, we think it might undergo the process of pruning with advantage; nevertheless, the author may be justified in offering his arguments strenuously and at length, on a subject confessedly of great importance.

Mr. Dendy has not been sparing of quotations to strengthen the arguments he advances, and has drawn some of his illustrations somewhat fancifully from poetical sources; but he is defended in this privilege of mingling "utile dulci," by no less an authority than the example of the philosophical author of Zoonomia.

We have neither time nor space to dwell longer on the introductory essay, but we would particularly point to the observations on the pathology of metastasis, and on the danger of repulsion, as it is termed, of eruption; to the censure of the custom of wet-nursing by a stranger, and to the pernicious effects of over-feeding. We shall, therefore, proceed to offer a few remarks on the practical portion of the work, which Mr. Dendy has divided into five sections, arranged essentially according to the causes of diseases.

The 1st division comprehends "Diseases symptomatic of disorder in the alimentary viscera," as strophulus, &c. The 2d division contains the "Diseases symptomatic chiefly of deranged chylopoietic functions, usually marked by debility."

From the subject of purpura hæmorrhagica, we quote the following passage:—

"On the first effusion of the blood, it is often of a florid hue, but it speedily becomes purple, assuming a brownish tinge as it is about to be removed by absorption. The cuticle above the spots is slightly elevated and smooth; sometimes, however, it is raised in vesicles filled with purple blood. In purpura hæmorrhagica, as well as scorbutus, the mucous surfaces are often more affected than the external skin, the danger being then materially increased, as the delicate epithelium is easily burst by the extravasated blood, and thus we have hæmorrhages from the gums, the throat, &c., which have given the specific name to this form. Internal hæmorrhage may thus take place, which sometimes proves fatal. It is rare that hæmorrhage takes place on the

> surface of the body; but, in some cases, the slightest pressure will produce ecchymosis, and firm compression will break the cuticle, and the blood will flow from the lesion. I have seen children evince this petechial tendency, being spotted black by the slightest bruises. The extravasation in very extreme cases, will sometimes occur from the mere muscular action of a limb. Blood will sometimes flow from the eyes, nose, and mouth of children, at the same time that they expectorate bloody mucus, and pass bloody stools resembling melæna, consisting only of sanious coagula, mixed with intestinal mucus. In protracted cases, where internal hæmorrhage has not speedily proved fatal, we see the blood gradually become paler, until, at last, the hæmorrhage will scarcely stain the linen on which it drops; the ecchymosed spots being subject to the same faded change, the circulating fluid appearing to assume almost the character of serum. The heart and liver have been found very pale in their internal fibrous or parenchymatous structure, a livid colour appearing under their internal membrane."

It is the author's opinion, "That the exciting cause of purpura is a defective state of chylification, which, of course, may coexist with excessive appetite and engorgement."

The 3d division comprehends "Diseases usually symptomatic, depending probably on peculiar idiosyncracy."

Mr. Dendy is of opinion, that erysipelas gangrenosus is sometimes ante-natal :—

> "The chemical decomposition of a fœtus dead within the womb, will produce appearances of livid spots, vesication, and sphacelus; but, where we have a *live* child expelled with *partial* gangrene, we may reasonably refer such effect to previous erysipelatous affection."

With regard to the morbid anatomy of erysipelas acutum, the author observes,—

> "Dissection shows to us, that the elasticity and extensibility of the cellular membrane are lost; dark grumous blood is found in the centre of inflamed membrane, and an appearance of incipient sphacelus. Hence, incisions made at this period during life, will not be followed by fluid discharge, but by clots of thin, coagulated blood; sometimes there is an opaque serum evacuated, very seldom pure pus."

Granting this to be correct, it strongly inculcates the practice of incisions,—the leading practical topic of the day. We should resort to it in such cases on the same principle as we should make crucial incisions in carbuncle. In his treatment, the author properly discriminates between the different forms of the disease.

The 4th division contains "Diseases consequent to specific infection," and the 5th, "Local diseases."

To conclude, we think the definitions of the diseases correctly stated, and, altogether, we are of opinion, that Mr. Dendy's work, if it add not much of novelty to our pathology, will tend materially to simplify the study and treatment of the cutaneous diseases of childhood.

WESTMINSTER MEDICAL SOCIETY.

Saturday, January 19, 1827.

Dr. BARRY, in the Chair.

A PAPER was read by Mr. DUCHET, on curvature of the bones of the lower extremities, as occurring in children, and he attempted to distinguish this affection, which he denominated simple curvature, from *rickets*; assigning as a reason for this division, that in four cases which he had treated, there was no enlargement of the heads of any of the bones, and also no affection of the spine. With respect to the *cause* of the distortion, he argued, that, inasmuch as an enlarged abdomen was an invariable concomitant of this disease, the distortion of the limbs was produced from the additional weight which they had to support. In the treatment of the four cases, (the particulars of which were minutely related,) rest, with attention to the general health, and the use of iodine ointment, were successfully resorted to. The abdomen, in each of these cases, was greatly swollen, and the iodine was employed under the supposition that there was an enlarged condition of the mesenteric glands; the distortion was observed to diminish progressively with the tumefaction of the belly.

The discussion which ensued was at first flagging, but eventually became very general. Mr. Bennett, Mr. Arnott, Mr. Lambert, and Mr. North were amongst the principal speakers. The causes assigned for the distinction of this curvature from rickets were shown to be untenable, for it was stated that the latter disease may, and frequently does, exist without enlargment of the heads of the bones, or without any spinal affection. It was admitted, however, that a species of curvature is produced in children who are comparatively healthy from bad nursing, from being made to stand at a very early period, when the bones are incapable of supporting the weight of the body. The mechanical cause of curvature, as stated by Mr. Duchet, was generally denied, it being argued that an additional four or five pounds weight to the abdomen could not occasion the bending of the legs; that in many cases of enlarged belly no curvature of the limbs was observable, and *vice versa*.

On the subject of rickets in general, some interesting remarks fell from different members of the Society. The question was agitated with respect to the actual proof of a diminution of the quantity of phosphate of lime in the bones when distorted, and in support of this view the opinion of Scarpa, as expressed in his last work, was quoted, namely, that in certain cases the phosphate of lime may be detected in the absorbent vessels; and also Mr. Wilson's observation, that in the cases of distorted bone, where a cure is attempted, phosphate of lime is found to be deposited on the concave surface of the curve. It was remarked, as somewhat singular, that no chemical analysis of the diseased bones had yet been instituted, although a very obvious method of ascertaining with certainty the fact of a diminution of phosphate of lime, and also its exact proportion.

In the course of the evening, when at one period the discussion on Mr. Duchet's paper had temporarily ceased, Dr. Duffin related a case which had fallen under his care in Edinburgh, and which he entitled "simulated hip-joint disease." The symptoms were stated to be precisely similar to those of morbus coxarius. Theré was great swelling about the hip-joint and upper part of the thigh, and indications of matter having formed, when all the local symptoms suddenly subsided under a discharge from the bowels of about two quarts and a pint of fluid, resembling yeast, mixed with some fæculent matter, the whole having a very sour smell.

The debate upon this case was very short, and principally hinged on the circumstance of its being contended that pain at the knee (which was not present in Dr. Duffin's case) is pathognomonic of acute disease of the hip-joint, whilst on the other hand it was argued, that in many cases of diseased hip-joint there is no pain felt at the knee. Mr. Copland Hutchison was of the latter opinion.

LONDON MEDICAL SOCIETY.

January 21.

Dr. Haslam, President, in the Chair.

The Society was again occupied this evening in discussing Mr. Searle's "Essay on Parturition," the main object of which was to prove, that the respiratory muscles are the most important agents in the expulsion of the fœtus, and that the uterus itself has but a very small power as an adjuvant.

The question with respect to the muscularity, or non-muscularity, of the womb was not long dwelt upon, because the author of the paper himself admitted that it possessed *tonicity*, or *contractility*; and it was also well observed, that parts might be amply endued with muscular power, although no muscular fibre were discernible. As an illustration of this the polypi, and the various zoophytes, were referred to, which, although apparently mere gelatinous masses, do possess an inherent capacity of motion to a surprising extent.

The grand point on which Mr. Searle attempted to maintain his opinion was, that the power of the uterus, even admitting its contractility to its fullest extent, would be exerted rather to retain than to expel the fœtus, and he instanced grasping a sponge in the hand. On this it was observed, that there was no analogy between grasping a substance, with the hand completely closed, and the uterus contracting upon a substance with its mouth open. It was remarked also, that the œsophagus contracts upon the substances passing through it, yet it does not retain them.

"The diaphragm pressing upon the fundus of the uterus," said the author of the paper, "is the material power which expels the child." In opposition to this it was argued, that the diaphragm can only descend to a certain distance, where it becomes fixed, and then is antagonised by the abdominal muscles, the force of which, according to Mr. Searle's own showing, is exerted in a direction calculated to retain the fœtus.

The Society in general entertained the commonly-received opinion, that the fœtus is expelled by the power of the womb, materially aided by the respiratory muscles, in the same manner that, by a conjoint power, the rectum and bladder are emptied.

Mr. Searle, however, was not convinced, and, although repeatedly beaten down, such was his elasticity, that he was again upon his legs; indeed, like the fabulous giant of old, he seemed to recover fresh vigour from being thrown to the earth.

The speakers were very numerous, amongst others were Drs. Walshman, Clutterbuck, and Williams; Mr. Tyrrell and Mr. Waller.

MEDICO-CHIRURGICAL SOCIETY,

January, 22, 1827.

B. TRAVERS, Esq., President, in the Chair.

THE particulars of a case of "medullary sarcoma, with hydrothorax," which recently occurred in the practice of Mr. Travers, were detailed to the Society.

The patient, a middle-aged athletic man, after an imprudent exposure to cold, was affected with uneasiness in the right hypochondriac region; at first, however, so trivial, that it was deemed to be merely a slight hepatic affection; but in a short time the symptoms assumed an alarming aspect, the right side of the chest obviously became greatly enlarged and distended, and there was dyspnœa to the most distressing degree, with violent palpitation of the heart. When Mr. Travers saw the patient, it was apparent that an accumulation of fluid had taken place in the right side of the chest to a very considerable extent; in consequence, the operation of paracentesis thoracis was resorted to, and about ten pints of serum were drawn off, dark coloured, but perfectly homogeneous. Some relief was afforded by the abstraction of the fluid, and also by the free exhibition of the liquor opii sedativus, digitalis having been previously given without benefit: upon the whole, the patient was so far improved, that an attempt was made to bring him to London (a distance of eighty miles) by easy stages, but he died on the journey. The period of his illness was three weeks only; a few days before this time, he was apparently so healthy and vigorous, that he tired two men in a day's shooting. Nine months previously, he had complained of slight uneasiness on the right side, and four years before, had had a tumour removed from the thigh, of a medullary character.

On a post-mortem examination of the body, about a gallon of fluid, of a straw colour, was drawn from the chest, the abdominal viscera were found to be healthy, but the stomach was greatly distended with gas. The diaphragm was seen lying in loose folds, the heart was completely pushed to the left side, and the left lung was condensed, pressed almost flat, and intimately adherent to the paries of the thorax. The right pleural sac was so much enlarged, that it occupied at least three-fourths of the chest; the pleura pulmonalis was studded with medullary tubercles of various sizes; there were also some coagula of blood in the sac, with portions of false membrane. At the upper part of the chest, lying upon the œsophagus and bronchi, was a medullary tumour, weighing at least three pounds, and consisting of brain-like matter externally, with grumous blood in the centre, having, in fact, all the characteristics of fungus hæmatodes. Owing to the compression of the tumour, the inferior lobe of the right lung was the only respirable portion; the fungoid disease, however, had not extended into the pulmonic substance. From the lower part of the cicatrix in the thigh, whence the medullary tumour had been removed four years before death, Mr. Travers took away a small substance, possessing the characters of medullary disease.

A case somewhat of a similar description to the foregoing, communicated by Dr. Hewett to Mr. Travers, was also related. The medullary tumour, in this case, was on the left side of the thorax, and was of about the size of an orange; there were fungoid tubera on the *outer* side of the pleura costalis, there had been extensive serous effusion into the thorax, and the operation of tapping had been performed. As in the former case also, the substance of the lungs, although suffering compression from the effused fluid, was not affected with the *malignant* disease.

In commenting upon the first case, Mr. Travers observed, that it well illustrated the disposition of fungoid disease to invade the different textures of the body; passing out of the line of the absorbents, it had first attacked *cellular* tissue, (in the thigh,) and then invaded a *serous* membrane at a remote part (the pleura). Mr. Travers proposed, as a question to the Society, whether it had occurred to any of the members, to meet with a case of "pure hydrothorax"—that is to say, a case in which there was no morbid change in the lungs.

Mr. LAWRENCE spoke at considerable length; he said, that he believed there was no such case as simple hydrothorax, that the effusion of serum was always the result or effect of some organic alteration; and consequently, that the operation of drawing off the fluid could only be regarded at best but as a palliative measure. He thought that the quantity of fluid effused in Mr. Travers' case, and also in Dr. Hewett's, clearly evidenced that extensive organic disease existed within the chest, and so far, was of importance as regarded the diagnosis. He did not concur with Mr. Travers in the opinion, that the disease was of much longer duration than the three weeks acute illness of the patient, for it had been said, that previously to that period, he had taken very laborious exercise in field sports, which could scarcely have taken place had disease existed in the chest. Mr. Lawrence was of opinion that the disease might have commenced and run its progress, even in the space of three weeks; for, he observed, that the rapidity with which fungus hæmatodes pursued its course, is a prominent diagnostic feature, and in confirmation of this, he related a case occurring at the head of the tibia in a patient 22 years of age. The affection came on about Christmas, and had so far extended, that early in the month of April it was necessary to amputate the limb; six days after the operation, ulceration of the artery ensued, and the case proved fatal from hæmorrhage. Upon examining the limb, it was found that two-thirds of the head of the bone were destroyed, the surrounding muscular texture was implicated, and a tubercle was found in the liver.

With respect to the displacement of the heart, as observable in Mr. Travers' case, Mr. Lawrence remarked, that although the heart is most frequently displaced gradually, yet it may occur also suddenly. He had met with a case of this nature, in a boy 15 years of age, who was brought to St. Bartholomew's on account of having been severely crushed at the chest; on the day after admission, the heart was felt beating violently on the right side, and not distinguishable on the left side. The peculiarity was so very striking, and existing as it did without any very apparent cause, that Mr. Lawrence was at first disposed to attribute it to some connate malposition; however, in the course of treatment (antiphlogistic) the heart resumed its natural situation.

Mr. Travers, in reply to Mr. Lawrence, said, that he grounded his opinion of disease having existed in the chest for a longer period than three weeks, on the fact of the left lung being in a state of condensation, and yet so attenuated, that it might be said to form the parietes of the chest on the left side, being not more than two or three lines in thickness, and the pleuræ most intimately coherent. Such an appearance of the lung, he said, had been noticed by Haller, and was different from the dense condition of the lung described by Morgagni, Baillie, and others, and of common occurrence.

The other speakers were Dr. Birkbeck, Mr. Earle, and Dr. James Johnstone: Dr. Birkbeck alluded to the circumstance of Mr. Travers' patient having only complained of trifling uneasiness about the chest, previously to the last illness, whereas close adhesion of the left pleural surfaces (the result of severe inflammation) had taken place. Mr. Earle briefly related a case of fungoid disease as an exemplification of the rapidity of its progress; Dr. Johnstone thought that auscultation, or even percussion, would have corrected the diagnosis in Mr. Travers' case.

PHYSIOLOGY OF PARTURITION.

To the Editor of The Lancet.

Sir,—In the report of a meeting of the London Medical Society, (17 Dec. 1827.) published in The Lancet of the 22d Dec., a paper is noticed on the action of the respiratory muscles in parturition, in which Mr. Searle states that "the only writer who fully accords with the proposition, that the respiratory muscles are the principal agents in parturition, is Blumenbach." Had Mr. Searle made himself acquainted with the contents of the Translator's "Introduction to Mojon's Laws of Physiology," he would then have found that the translator had published numerous reasonings on the funtions of the uterus and respiratory muscles in the uterine phenomena.

Although little merit will be obtained for an attempt to remove the idea of the fœtus being expelled by the spasmodic contractions of the uterus; I cannot allow that gentleman the claim of priority, even should that idea be supported by fact, as it is now by lurking prejudice.

Blumenbach considers the action of the respiratory muscles only among the *remote causes* of parturition, which is generally admitted by obstetric artists; therefore I did not quote him as a particular authority; and a still further reason for not adducing this German philosopher as a support to my reasonings, is the fact of his asserting that, "the *proximate* and primary cause of parturition is solely the *vita propria* of the uterus."[*] This *vita propria* he calls a law of nature!

Thus it will be found that if merit is due to the promulgator of a new theory of parturition, and other functions of the uterus, namely, the menstrual discharge and the fœtal venous circulation, &c. it cannot be a tribute to be paid to the learned Blumenbach.

Thanking you for the insertion of this letter in the popular pages of your Journal, I have the honour to be,

Sir,
Your obedient servant,
George R. Skene.

6, Jermyn Street, St. James's,
19th. Jan. 1828.

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[*] Dr. Elliotson's Translation of Blumenbach's Institutes of Physiology, p. 333. sect. xli.

GUY'S HOSPITAL.

SINGULAR INSTANCE OF GANGRENOUS INFLAMMATION AFFECTING THE CELLULAR TISSUE, BEHIND THE PERITONEUM, WITH DESTRUCTION OF THE APPENDIX CŒCI.

The following case, which occurred in the female clinical ward during the past week, has excited much interest. The anomalous character presented by the disease during the life of the patient, with the circumstances revealed on post mortem examination, are highly remarkable.

M. A. H., ætat. 19, was admitted on the tenth of January, under the care of Dr. Cholmondeley. She had been ill several days, and complained of great pain, and tenderness upon pressure over the whole of the right inguinal region; the pulse was quick and thready; the skin hot, and tongue furred; the bowels had been scantily open in the morning; there was occasional bilious vomiting.

The patient had been attended previously to her admission by Mr. Gaitskell of Rotherhithe, and we believe that Mr. Callaway had also seen her. Blood-letting from the arm had been adopted thrice, with the free application of leeches, and a blister to the part in pain. It was surmised from the limited seat of the pain that there was inflammation of the round ligament of the womb, and the circumstance of the girl dating the origin of her complaint from exposure to cold whilst menstruating, gave a colouring to this opinion.

The treatment employed on admission into the Hospital consisted in the application of leeches, with the exhibition of one grain of calomel, and a like quantity of opium, every four hours. Enemata were also directed.

On the eleventh, the pulse was quick and sharp, and there was still intense pain in the inguinal region; the patient laid in bed with her knees drawn up, any motion occasioning a severe dragging pain. The bowels had been open several times, but all the evacuations were passed with great pain, and this circumstance had been especially remarked before the patient's admission into the Hospital, and also that although there had been frequent watery and thin stools, no solid matter had passed.

On the twelfth, the symptoms continuing unrelieved, blood was taken from the arm to the amount of *ten ounces*, and the pulse having risen, two hours afterwards twenty ounces were abstracted, when, according to a report in the clinical ward-book, the pulse became soft; calomel, with opium and tartar emetic were prescribed.

On the thirteenth, the pain was still excessive, and confined to the same part; leeches were very freely used.

A report on the fourteenth, states that the patient passed some dark scybala, the tenderness and pain were somewhat less, but there was great fulness and hardness in the course of the cœcum, and ascending portion of the colon. There was occasional vomiting of bilious matter, and frequent hiccup. Ten ounces of blood were taken from the arm.

On the 15th, the sickness was very distressing, being induced on the slightest motion; the countenance was sunken, and all the vital powers were so much lowered, that a small quantity of wine was prescribed. The swelling and pain in the inguinal region, were unrelieved.

On the following day, the 15th, the patient had rallied in some degree, and the report in the Clinical Ward Book states, there was an obscure sense of fluctuation in the right inguinal and iliac region.

Throughout the 16th, the patient continued in an alarming condition; the bowels were now so freely relaxed, that the motions were passed in bed. About eleven o'clock at night, Mr. Key saw the patient, and "fluctuation being more distinct," an opening was made, of about two inches in extent, through the paries of the abdomen, and at a short distance above the spine of the ilium. It is stated, that after the opening had been made, a quantity of fœtid gas escaped, and also about two tea-spoonsful of sanious fluid, which was highly fœtid. The opening was effected by cautious dissection, and the peritoneum is said to have been "full an inch and a half from the surface," and "of a blue colour." A cavity was clearly to be traced with the finger.

The patient continued to suffer greatly during the 17th, and died early on the morning of the 18th, having been in the hospital, as will be perceived, eight days.

Post Mortem Examination.

This was made, about six hours after the patient's decease, by Dr. Burne, with his accustomed accuracy. Upon laying open the abdomen by means of a longitudinal incision, no morbid appearance, *prima facie*, was perceptible; but, on drawing back the integuments of the abdomen on the right side, it was found that adhesion had taken place between the omentum and peritoneal covering of the parietes. It was simply, however, an agglutination, and the parts were very readily separated, when it was found that a kind of cyst had been formed by means of the adhesions, which contained a small quantity of dark serous fluid.

The peritoneum covering the back part of the abdomen on the right side, and on which the dark serous fluid had laid, (it being, of course, within the bag of the peritoneum,) was observed to be of a dark colour throughout, and there was evidently a collection of dark fluid behind it. The membrane was carefully sponged and wiped, with a view of ascertaining whether there was any lesion of its substance; however, after a minute inspection, none could be detected. An incision was then made through it, and here most extensive disease was found; the cellular tissue, over the psoas and iliacus internus, was engorged with a dark bloody fluid, the substance of the muscles themselves was destroyed to a considerable extent—in fact, the parts were in a gangrenous condition. The back part of the cœcum, and ascending portion of the colon, were of a dark red colour, apparently the result of simply lying in contact with the gangrenous cellular tissue; there was no breach of their texture to be detected, and, although the peritoneum was of a dark colour, it had, as far as could be ascertained, preserved its integrity.

It is highly important to mention, that a considerable portion of the appendix cæci was found to be destroyed, and the remainder had a dark-coloured appearance. The appendix cœci was included in the kind of cyst, which, we have said, resulted from the adhesion of the omentum to the peritoneum of the right paries. From the circumstance of the destruction of the extremity of the cœcal appendage, it was surmised that some extravasation of its contents might have taken place, but there was no fœcal smell either in the fluid accumulated within the bag of the peritoneum, or that which was formed in the cellular tissue posterior to it. And, again, there was no communication to be found, existing between the fluid within and that without, although they did not differ from each other in appearance. The general surface of the peritoneum was free from disease, and no other morbid change than we have described was observed.

ST. THOMAS'S HOSPITAL.

SCIRRHOUS DISEASE OF THE LOWER PART OF THE ŒSOPHAGUS, WITH EXTENSIVE ULCERATION OF THE MUCOUS MEMBRANE.

In a clinical lecture delivered a short time since, Dr. Elliotson exhibited to the class the stomach and œsophagus of a female patient affected with scirrhous disease of the latter part. The particulars of the case are as follow:—

The patient, a middle-aged woman, sallow and unhealthy in appearance, came into the Hospital on account of severe occasional pain in the whole of the epigastric, and both hypochondriac, regions; she evinced much tenderness, on making pressure at these parts, and complained of a slight difficulty in swallowing, which she said was owing "to the wind meeting the food." She had been affected with occasional vomiting, and a dry husky cough, upwards of eleven months.

Dr. Elliotson, considering the symptoms as referrible to chronic gastritis, freely and repeatedly leeched the epigastrium, and also applied blisters; the extent of pain was by these means removed, and what remained was in the left side only, under the cartilages of the ribs and about the situation of the cardia. The vomiting, however, continued, and in the course of a short time the pain, although lessened in extent, became continual; the difficulty of swallowing also greatly increased. The sickness was observed to occur immediately after taking food, and thus every thing was rejected. It now being evident that there was some mechanical impediment to the passage of the food, and that the obstruction did not arise from "flatulent spasm," as was supposed by Dr. Elliotson in the first instance, a bougie was passed, and a stricture was found to exist at the lower part of the œsophagus. The bougie was at first resisted by the stricture, but after waiting a minute or two it readily passed into the stomach; the effect of the introduction of the instrument was, the excitement of as much gastritis as when the patient was admitted, leeches and a blister were in consequence applied, which subdued the irritation and pain in some degree, but the vomiting still continued. Opium and saline effervescing draughts failed in checking the sickness, and prussic acid was therefore directed, commencing with the dose of one minim three times a day, and gradually increasing it to *four minims*. In the latter dose it stayed upon the stomach, and, as Dr. Elliotson remarked, was the first and only thing that did so; the relief from this medicine was very striking, for upon its being omitted for a day the vomiting immediately recurred in a distressing degree, and was then as speedily checked by the acid. The dose was eventually augmented to *seven minims*, and with this dose the tendency to sickness was so far removed that food stayed upon the stomach. However, the poor woman being unable to swallow without great difficulty and distress, and being in constant pain, which deprived her of rest, the general health gave way, and at length she sunk.

The body was examined, and at the lower end of the œsophagus, about an inch from the cardia, there was found ulceration of the mucous membrane to the extent of an inch and half; it was quite superficial, of a dirty white colour, rough in appearance, but soft to the touch. Exterior to the ulceration the coats were converted into a solid cartilaginous substance, that on being cut into was seen to be homogeneous and white, having in fact all the characters of true scirrhus. The cartilaginous hardness was of greater extent than the disease of the mucous membrane, and this circumstance Dr. Elliotson especially pointed out, as leading to the inference that the disease probably commenced in the connecting cellular tissue of the œsophagus, and certainly not in the lining membrane.

Dr. Elliotson observed, that with respect to the diagnosis of the case, he had given an opinion that the disease was about the cardia previously to its being ascertained by the introduction of the bougie; that the situation of the pain, the constant vomiting when food was taken, and the absence of pain or tumour in the region of the pylorus, were the circumstances which led to this opinion. He remarked also that in cases of diseased pylorus, the vomiting, if it occur at all, is usually an hour or more after taking food.

ST. GEORGE'S HOSPITAL.

CASE OF SEVERE CONCUSSION OF THE BRAIN, TREATED BY MR. JEFFREYS.

W. T., ætat. 37, was brought into the Hospital on Monday the 29th of October, at one o'clock A.M., in a state of insensibility, having, about half an hour previously, fallen down the steps of an area, and pitched upon his head. It is supposed that he was rather intoxicated at the time. There was a large wound of the scalp over the right parietal bone, and a smaller one on the occiput; the pericranium was not injured. There was some bleeding from the right ear, and also from the nose. When the head was touched in the neighbourhood of the wounds, he evinced pain by raising his hands to his head. The pupils acted when exposed to a candle; the respiration was loud, the pulse slow and weak, and the extremities cold. The edges of the wounds were brought together by strips of adhesive plaster. At 10 A.M. he was much recovered from his insensibility, answered questions coherently, and complained of great pain in his head, with confusion of ideas; the pulse was weak, but rather quicker. At two P.M., the pulse having increased in fullness, and the skin becoming hot, he was bled to twelve ounces, and was directed to take one drachm of the sulphate of magnesia, twenty minims of antimonial wine, with an ounce and a half of the saline mixture, every four hours. Ten P.M. The patient is very restless, complaining of violent pain in the head; the skin is hot, and the pulse full. The bowels have been moved. He was now bled to 16 ounces.

Oct. 30. Has had a restless night, complains of much pain and soreness in the back part of the head; he dozes much, but is sensible when roused. The tongue is white and foul, the pulse slow, full, irregular, and intermitting; he has passed four or five copious stools, after which he appeared slightly relieved. Bled to 18 ounces, and ordered to take one grain of calomel, with four of jalap, in a pill, and a dose of saline mixture, every four hours.

The blood drawn yesterday was not buffy; the man has had a better night, and is more sensible to day, but he still complains of great pain in his head. He also directed the attention of Mr. Jeffreys to the posterior part of the left ilium, where he felt much pain; there was found to be considerable contusion here, with a sensation of crepitus. Twelve leeches were ordered, and a flannel roller to be afterwards applied. The bowels have been freely evacuated; the tongue is clean, the pulse is 100, full and regular; he was bled to 14 ounces, and ordered to continue the saline mixture, but to omit the pills.

Nov. 1. The man has been restless, and rambled a good deal in the early part of the night; he is sensible, and complains of pain in his head, particularly across the forehead and eyeballs; the tongue is white and furred, the bowels open, the pulse 92, sharp and hard. The blood drawn yesterday does not appear inflamed; he was bled again to ten ounces.

2. Has had a quieter night, but still complains of pain across the forehead; some pus was observed to oose from a small orifice above the right ear, and as there was slight swelling, with tenderness on pressure, an incision was made into it. The tongue is white, the pulse 96, bowels open; the wounds are looking well; directed to continue the same mixture, and to have a linseed meal poultice applied to the temple where the incision was made. The blood drawn yesterday was slightly buffed.

3. Last evening the pulse having become sharp, and the pain across the forehead increased, he was bled to eight ounces; he slept a little last night, is perfectly sensible, but is rather deaf; there is some tumefaction about the incision made yesterday, and he complains of great tenderness about

the eyes; the pulse is weak, the tongue white, and the bowels are open; to continue the saline mixture.

4. Has passed a better night, having slept five or six hours. Ten leeches were applied last night to the right temple; the bowels have not been opened since yesterday; the tongue is white, and the pulse is not so sharp; he was directed to take three grains of calomel, and fifteen of jalap, directly.

5. The man has had a quiet night, the bowels have been moved several times, the motions being of a dark colour; the pain in the head is not so violent, but he cannot bear the light; the wounds are looking healthy, and discharge freely; the tongue is white and moist, and the pulse is rather sharp. Directed to take a senna draught directly, and to repeat it three hours after.

6. The man has had a tolerable night, but still complains of pain across the forehead; he answers questions quickly; the pulse is full and irritable; ten ounces of blood were ordered to be drawn from the temples by cupping, and to take four grains of calomel directly, with a senna draught three hours after.

7. The wounds look well; has less pain in the head, and the bowels have been moved. A blister was applied to the back of the neck.

8. Since the application of the blister, he has had much less pain, and his countenance is more lively. Directed to take a senna draught every three hours.

9. Has had a good night, complains of the light hurting his eyes; the tongue is clean; bowels open; the pulse is weak and flagging; he was ordered to take half a drachm of sulphate of magnesia, twenty minims of the tincture of henbane, with an ounce and a half of infusion of roses, every four hours.

10. The patient has less pain in the head, and intolerance of light; the wounds are healing, the tongue is clean and moist, the pulse is 100, and more regular; the bowels are costive. He was ordered to take a senna draught every three hours, until it acted.

14. Has had a restless night, with great pain on the right side of the head; there is also a redness and puffiness observable about the wound over the ear, and the wound itself is dry and sloughy. He has had several rigors this afternoon; is perfectly sensible; the bowels are open, and the pulse is quick. Linseed poultice to be applied to the wounds.

15. There is great tenderness over the whole scalp; the redness is more extended; the man has rigors occasionally; the tongue is furred; bowels have not been moved since yesterday; the skin is hot; pulse 100, and full. Eight ounces of blood were ordered to be drawn from the arm, and ten leeches to be applied to the temples; and after the leeches came off, a bread poultice was to be applied; the man was also ordered to take two grains of calomel, three of antimonial powder, and six of jalap in a powder, and an ounce and a half of the saline mixture every four hours.

16. The man has had a restless night, and is very fidgety and impatient this morning; the tongue is white and furred; the bowels were moved in the night; the skin is very hot; pulse 110, hard and wiry; he was bled to sixteen ounces, and twelve leeches were applied to the temples; a spirit lotion was afterwards kept constantly applied to the head.

17. Has had no sleep, but is more composed this morning; there is less tenderness of the scalp; the blood drawn yesterday is both buffed and cupped; the tongue is cleaner; the bowels are open; the pulse is softer and slower; twelve leeches were applied to the temples, and a senna draught was ordered to be taken directly.

18. Tongue is clean; bowels are open; the pulse 95, and fuller. The man has lost about four ounces of blood from the temporal artery, where the scarificator had been applied. Twelve leeches were ordered to be applied to the head, and he was directed to continue the medicine.

19. Has had some sleep to night; his countenance is improved; the skin is moist; pulse 85, soft, and regular; the tongue is clean, and the bowels open; continue the medicine. The temporal artery bled again to-day.

21. The artery was divided to-day, to prevent any more loss of blood, and the man was ordered to take some sulphate of magnesia in infusion of roses, occasionally.

22. There is slight erysipelatous inflammation about the nose and face. The spirit lotion was ordered to be applied to the parts.

From this period, nothing material transpired; the inflammatory affection of the skin speedily subsided; the man gradually recovered his health, and was dismissed well.

The most striking feature in this case, was the long-continued disposition to inordinate vascular action within the head, and this is by no means an unfrequent effect of what appears to be commotion of the brain, simply. There is, in such cases, some derangement of the equilibrum of the circulation, and it is surprising with what obstinacy it continues, resisting, in many cases, even the most rigorous antiphlogistic measures.

[Correspondents in our next.]

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LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture XVII.

Management of Floodings, with Asphyxia, resumed.

When closing the former Lecture we were engaged, Gentlemen, in making some observations upon the management of those cases in which large quantities of blood come from the uterus, the patient being reduced of consequence to a state approaching to asphyxia, a subject which I now resume.

Called to a patient labouring under the asphyxia of flooding, probably one of the first impulses which you may feel will be to empty the uterus; and you may either consider of the propriety of discharging the liquor, if not discharged already, or you may revolve in your mind whether it would be proper or not to carry the hand into the uterus, with a view of abstracting the placenta, fœtus, or whatever else may be lodging there. In these cases, however, of vast importance, and in their occurrence by no means uncommon, awake—reflect—beware—before you make your decision; for, on your determination the life of the patient depends. In these cases of alarming collapse, be it remembered, that, if the flooding be suppressed, you are on no account to interfere manually, not even an examination should be rashly made; disturb the clots, and you renew the bleeding, and the patient gasps—heaves—breathes deeply—throws her arms about upon the bed, and dies. Even though the woman be on the rally,—her extremities warmer, her pulse larger, her mind recovering, her strength increasing—should there with these symptoms be little or no return of the bleeding, it is improper manually to interfere: disturb the clots, and she may perish still. But if, asphyxia threatening, the bleeding from the womb return copiously, by gush or clot, or more abundant draining, you may then, *perhaps*, be justified in having recourse to manual operation—the discharge of the liquor, the removal of the fœtus, the abstraction of the placenta; operations, no doubt, of danger in these cases, even under the best management; but, on the whole, *perhaps*, of less danger than the continued flooding which they are intended effectually to suppress. I regret that, on a point of practice so important, I am compelled to unsettle my opinion by the interjection of the dubitative—*perhaps*; but, after all I have seen of these cases, I am not sure that it would not be better to refrain from manual operations altogether, when the collapse is extreme, even though the flooding return somewhat copiously, the suppression being confided to other remedies before enumerated, or to the effects of the faintness. These are dreadful emergencies, and surrounded with difficulties; refrain, your patients occasionally sink; if you do not deliver, blame is frequently imputed. I acknowledge, whatever opinion might be formed by those about me, for myself, however, I had rather feel within that the patient perished under the operations of nature, than that my meddlesome hand was unhappily auxiliary to her destruction. Perhaps the rule may be laid thus: when asphyxia threatens, if the flooding be stopped wholly or in great measure, watch and assist the patient in other ways, but refrain from manual operation and disturbance of the clots. On this point of practice, among competent judges, there can, I conceive, be no doubt. Further, when asphyxia threatens, should the flooding pertinaciously or obstinately return, an occurrence by no means very frequent, though in vigorous women manual operations may be justifiable, provided they contain the only remaining hope of effectually stopping the bleeding; yet, if the patient be weakly and much collapsed, and the danger of death from the hand be immediate, it may be wiser to abstain altogether from manual disturbance, and to commit the woman to her own resources, assisted by the other means of suppression not obnoxious to the displacement of the clots. In coming to our determination, the degree of disturbance likely to arise from the operation must be considered; for example, to puncture the membranes and discharge the liquor amnii, may be proper enough, when the introduction of the hand into the cavity of the uterus would be certain death. But, in the third place, what is to be done, if manual operation have been rejected at this season of collapse, and, if the woman, rallying completely at the end of a few hours, the ovum still remain in the uterus—the system being, of course, exposed to a return of the bleeding? Why, under these circumstances, Gentlemen, should the flooding not return, manual operations are still to be deprecated; but, should the bleeding recommence, then, with promptitude, the patient having vigour to sustain the operations, these should be had recourse to, and the liquor ought to be evacuated, and the fœtus or the placenta ought to be taken away, according to rules which will hereafter be explained and prescribed.

But, to proceed. Where a great deal of blood has been lost, and the patient is lying in a state approaching to asphyxia, it may be proper, perhaps, to apply cold to restrain the bleeding; and, if the hæmorrhage is going on, and if there is some warmth still remaining about the body, the application of cold, as formerly prescribed, by means of a napkin or otherwise, may be fitting enough. Even in other cases, where the application of cold does not appear to be necessary, it may be proper to administer it in forms less extensive and intense, because the popular opinion is in favour of it; a little vinegar and water may, therefore, be applied externally. Nevertheless, I conceive, myself, where patients are reduced to the state I am now supposing, and are already exceedingly cold, so that if you touch any part of the body it is chilly as a corpse, this topical refrigeration would be of very little use; nay, there are some cases in which, if you were to push it far, it might be hurtful, the woman being so greatly debilitated, and the heart and arteries being prone to a cessation of action altogether.

I know not that it is generally necessary, in the cases we are now considering, to plug up the vagina; because, on applying napkins as a test of the bleeding, in the way formerly prescribed, you will often find that the hæmorrhage is altogether stopped; there is no rush of blood, and no large clots are coming away, the circulation is too low to admit of this; you find merely a small stain on the white surface of the cloth. If, however, the plug is not likely to do mischief by displacing the clots, in those cases where the hæmorrhagia is disposed to continue, I would recommend a closure either with sponge or tow, or old cloth; old cloth I should prefer. After-floodings, I mean those cases in which the bleeding comes on after the child is away, and before or after the birth of the placenta, are, as before observed, scarcely fit for the plug; at least, it is only a dexterous accoucheur who could use it in such cases with advantage. The cases best calculated for plugging, are those in which much blood has been emitted from the uterus, the patient collapsing, and the bleeding continuing, while the fœtus or ovum still remain within the uterine cavity.

When women are much reduced, in consequence of large quantities of blood lost from the uterus, their digestive powers are in a great measure destroyed; and, certainly, there is often such irritability of the stomach, that whatever you may introduce into its cavity is speedily rejected. On both these accounts, you will find in flooding cases, the more formidable floodings especially, that to nourish women in this state, as some medical orators have advised in our debating societies, is by no means an easy task; nevertheless, as nourishment, and the support that is to be derived from it, are of no small importance, when women are approaching to a state of asphyxia, supplies of aliment ought by no means to be overlooked. Respecting the advantage of solids, my mind is not made up. Broth; eggs, differently prepared; bread and milk; milk itself; may any of them be recommended, the last two have the advantage of being easily procured and prepared. Broth, or beef tea, requires a longer preparation. Half a pint, or a pint, remaining in the stomach, may, if I may be allowed the expression, be deemed a sufficient dose.

In those cases where women are approaching to a state of asphyxia, you will find sometimes beginning to manifest itself, that restlessness which I have mentioned more than once. The patient wishes to change her position; she throws about her feet or arms, and perhaps, in some convulsive moment, suddenly she turns round, though perfect quiet, so necessary to her safety, has been strictly enjoined. Now, as far as I understand the practice, it is in these cases, after much blood is come away, and the patient, of consequence, has been gradually reduced, and disposed to irritability, that the large doses of opium, advised by Hamilton and others, as Stewart, for example, should be administered. If the fœtus is still in the uterus, and it is not your intention to carry up your hand and bring away the child by the operation of turning, it would, perhaps, scarcely be proper to give the opium in the larger doses, for it might prevent the pains, and the spontaneous evacuation of the womb, though it is not so powerful in this way, as mere speculists might suppose. The case best calculated for the opium is, I conceive, that in which there is a good deal of restlessness, and where the child has been taken away, or where it is your intention to perform the operation of turning. It might, indeed, be plausibly argued against its being largely given in those cases, that opium may prevent the thorough contraction of the womb, even after the fœtus has been abstracted. A serious accident, contraction of the womb, being one of the principal securities against bleeding; for, as I told you before, when the womb contracts, the muscular fibres contract, the vessels becoming contracted also, are closed as it were by so many ligatures. Notwithstanding this plausible objection, however, after what I have seen of these contractions at the bed side, provided I expected any solid benefit from the opium, I should not, on this account, be disposed to delay its administration. When opium is administered, in those cases where a great deal of blood has been lost, it should be measured according to the effect which it exerts upon the system; for ordinary doses will not operate on a woman half dead already, from the eruption of the blood. From two to three drachms, by measure, of the tincture of opium, it may be necessary to give in two or three hours, provided you mean it to operate powerfully on the system, the practitioner commencing with one hundred drops, and repeating a dose of fifty or sixty every twenty or thirty minutes, according to the effect produced. Be firm in the use of the opium, but not rash; you may safely give the larger doses, if you give them under the control of a judgment sagacious and attentive. When the opium is beginning to act on the system, then, of course, your hand should be stayed; if the irritability is much diminished, if your patient become drowsy, if there is a tendency to that garrulous delirium which you may often observe in women where they have taken narcotics, then you ought to discontinue its administration. In the fourth volume of the Medical Chirurgical Transactions, two cases of large bleeding from the womb, attended with very dangerous symptoms, are recorded by Stewart. In those cases opium was employed, and they afford a very excellent illustration of the doses women may take, and the effects that are produced by them. I was not, however, from a careful perusal of these cases, able to convince myself that it was by the opium that the women were preserved; this seems very dubious; but, it appears, according to Stewart's statement, that the opium had great effect in diminishing the irritability, and, at all events, it is obvious it did no harm. The intrepidity and decision shown by Mr. Stewart are well deserving of commendation.

So long as there is no danger lest the patient sink out of a state of asphyxia into the hands of death itself, so long you are to look upon fainting, not as injurious, but beneficial. You ought not, therefore, to excite the patient in these cases, merely because she is lying in a state alarming to the friends; but if, on making your observations, you perceive that the system is sinking lower and lower, instead of being on the rally, it then becomes necessary, at all hazards, to support the heart and vascular system; and, independent of transfusion, one of the most effective remedies for accomplishing this, is stimulus, according to the effect it produces. For ordinary purposes, I think you will find the *alcoholic stimulus* answer as well as any other; and it has the advantage too of being generally at hand. Rum, brandy, geneva, any of the three may be admininistered, but perhaps to rum the preference may be given. In the diluted state you may sometimes administer it; say water one part, with one part spirit; but provided your patient can bear it, as she frequently may, under the inertness of the inanition, the pure spirit will be preferable. If we give the spirit pure, a smaller measure will be necessary, and there will be less risk of its being rejected by the stomach. According to the effect produced, this stimulus must be administered; and you will, perhaps, be surprised to hear me state, that I have given eight or ten ounces of the pure spirit in the course of two or three hours, that is, half a pint or more, and this to young persons too, who, it may be, in the whole previous course of their lives, had been wholly unaccustomed to the stimulus. The truth is, like all the other parts of the body, the stomach is half dead, under the inertness of inanition; and being in this way, half dead from the lowness of the circulation, it is not capable of being acted on by the spirit in the same manner as it would be, provided its condition were more lively and susceptible. Half a wine-glass-full of rum may be administered at a dose. Where it operates, it usually operates, I think, more speedily than opium. Wait for twenty or thirty minutes, sometimes ten or fifteen only, and you may see pretty clearly whether the spirit will act on the system or not; if the lips are reddening, the pulse rising, the extremities warming, you have attained your object, the patient is on the rally, and, for the time, at least, no further quantity of spirit need be given; for it is not to stimulate too highly, but merely to touch the beam of the balance, and turn the wavering scale in our favour, that the spirit is given at all. But, on the other hand, if in the course of ten or fifteen minutes the spirit already administered is not observed to act, a repetition of the doses becomes necessary, till at length you reach those larger and extraordinary measures to which I before adverted.

Debating societies have, I conceive, no place in scientific medicine; societies for discussion proffer many advantages, but the distinction is too often overlooked: in the eagerness of debate you will sometimes hear it asserted, that if women are well managed in their floodings, the after-floodings especially, however alarming may be the symptoms, death will never occur; these assertions I have myself not unfrequently heard, but the intrepidity of assertion must sometimes be rebutted by equal intrepidity of unbelief: to declarations of this kind, I always turn a deaf ear; with these eyes, I have seen the fact to be the contrary; with these eyes I have seen, that, under the best received modes of treatment sometimes, and still more frequently under management of average excellence, women must occasionally sink. Nor is it, I think, arrogating too much, to affirm of those who make these assertions, that if not negligent or insincere, they can have had but few opportunities of seeing those more dangerous forms of flooding on which they are presuming to dogmatise. My observations being entirely free from personality, I deliver them with more freedom. In medical discussions, to deal rashly and roundly in asseverations of this sort, refuted by experience, can have no effect with men of sense and observation, beyond that of diminishing or destroying confidence in the authority of the apeaker: to talk in this manner, is to butt against the fact; it is (pardon the comparison), it is to run the head against a brick wall; or, if I must use an expression less homely, but not more forcible or appropriate, it is to impinge blindly and with certain discomfiture, against the solid materials of truth.

"Come fa l'onda là sovra Cariddi,
Che si frange con quella in cui s'intoppa
Cosi convien, che quì la gente riddi."

When women, after large and dangerous floodings, are, to appearance, recovered, it sometimes happens in the course of a few days or weeks subsequently, that they are carried off by vomitings, purgings, and hydropic affections, and more especially by purgings. After the floodings, inflammations, and it may be excoriations, of the intestinal membrane supervene, and these give rise to irritability and diarrhœas, and gradual or more sudden declensions of the strength, under which, notwithstanding all the care that may be taken of the patient, she occasionally sinks and dies. It sometimes happens too, and if I were to examine the pages of my adversaria, I think I should be able to adduce several instances of this kind,—it happens sometimes, that women suddenly and unexpectedly perish under flooding, or, as before observed, sinking after the stoppage of the bleeding, in a manner more gradual; they are one, two, three hours, or perhaps longer in dying, the latter cases being, I think, by far the more frequent. After delivery, perhaps, the patient lying quietly upon the bed a few minutes before or after the birth of the placenta, a sudden gush of blood takes place from the uterus, to the amount of two or three pints; instantaneous collapse of the strength ensues, and from that time forth it may be, though little more blood is lost, the patient's doom may be looked upon as sealed. It is true, indeed, that at times she rallies, and, it may be, rises so conspicuously, that, according to ordinary prognostics, you would expect her to do well; but then again she sinks to rise, and sink again, like the flashes of the half-extinguished taper, while, with a reluctance which avails her nothing, she is gradually subsiding lower — lower — lower, till at length she suddenly drops into that grave from which, under the use of received remedies, no human art can save. Of twenty cases of flooding well managed, I believe that perhaps nineteen will frequently do well; but probably you will find the twentieth to be of the kind which I have been here describing, and for this we ought to be prepared.

If *transfusion*, with all its defects and excellencies about it, should be found hereafter to be as safe as other received operations of surgery, (venesection for example,) it may then, I conceive, be performed in those cases where there have been large discharges of blood from the uterus, although the danger arising from the inanition may not be very imminent. In the present state of knowledge, however, and until we have further proofs of its efficacy and safety, in cases which are not desperate to appearance, I should not recommend the operation of transfusion; but, if you have under care a patient in whom the flooding has been copious, in whom, further, the womb has been emptied, and the hæmorrhages been stopped; should this woman, as I have myself on several occasions seen, be sinking gradually into the grave, so that even to those who have seen much of floodings the case appears to be without hope; under such circumstances, I affirm that it is highly proper to have recourse to the operation of transfusion, provided we are competent to perform it. On the human body, no needless experiments should be made. I speak the truth when I declare, that I have not to charge myself with having ever by speech, writing, or conduct, in my whole professional career, among rich or poor, in any way endeavoured to give countenance to a contrary principle; but, nevertheless, I maintain, that desperate emergencies occur in which the use of this *not* desperate remedy may become a sacred duty. Nor is it very difficult to distinguish these emergencies, asking yourselves these simple questions: if I were myself in the same state of inanition with this poor creature, or, more interesting still, if some woman near to me, and more than dear, were in the same state of inanition, should I wish transfusion to be performed? Provided you have an ordinary share of sense and experience, those piercing whispers which enter the soul, the whispers of conscience, I mean, will tell you plainly whether you ought to operate or not. Do as ye would be done by; in surgery as in ethics, the principle universally applies.

In performing this operation, which I shall presently explain to you more at large, it is not necessary that you should inject any very copious quantity of blood, for, in the present state of our knowledge, it would be unwise to endeavour by large injections to raise the patient at once from a moribund condition to a state of vigour. What is the ordinary average measure of blood required in order to turn the trembling balance in our favour, has not as yet been clearly ascertained by facts and observations. From what little I have observed, however, I should suppose that from half a pint to a pint may be considered as a very ample supply; and I feel persuaded, that of those women who have sunk under floodings, the greater number would not have been lost, could they but have retained the last ten or sixteen ounces of the blood which they have lost.

Although I have said an operation of this sort is not to be rashly prescribed, and although, in the present state of knowledge, it ought to be confined to those cases only which, according to our honest judgment, must be considered as desperate without it; yet let me add further, in the way of caution, that where there is need of the operation, it is obvious the sooner it is performed the better. I have myself seen two women die, whose lives I feel persuaded might have been preserved to society, had transfusion been more promptly begun. Anxious to refrain from the operation, while there remained a hope of life without it, I delayed the use of the syringe so long, that before transfusion could be commenced, the patient in both instances was breathing her last. For this delay I was, perhaps, to blame; but I reflected, it may be not without reason, that the operation was novel; in the retreats of my study, I had heard the clamour which had been raised against it, and I was solicitous that I might not, by having recourse to the operation under circumstances where the need for its use was ambiguous, bring upon myself the suspicion of being a thoughtless enthusiast, who was disposed on all occasions, however slight, to have recourse to the transfusing syringe, and upon the operation itself, the discredit of being supported by such an advocate. To give you a summary, then, of what appears to me to be important on this point, I conceive, that under the large eruptions of blood from the uterus, if well managed, in general, say in nineteen cases of twenty, your patients, though they may alarm and shake your nerves, will nevertheless ultimately do well, and transfusion will not be required. I maintain, however, notwithstanding what is asserted to the contrary, and I boldly maintain, for I am irresistibly borne out by facts, that under the best and most judicious treatment, and certainly under treatment of average excellence, dissolutions may occur, sometimes so suddenly that you have not time to act; more frequently in a gradual manner, so that you see the patient sinking slowly, by little and little, into the grave. Now, in cases of this kind, when the patient is sinking gradually, I am not sure that transfusion might not be proper, even though the ovum were still in the uterus; but certainly such cases are not adapted to the splendid success of the operation, for so long as the womb is unemptied, the bleeding may return, and the blood may be lost again as soon as it is injected; but when the uterus has been emptied, and the hæmorrhage has been stopped, (and of all the cases these are the most common,) then, under the conditions stated, the syringe should be tried, provided the case be obviously desperate without it—provided, too, you feel conscious, that, lying in the situation of the patient, you would wish the essay to be made on your own person. The operation once obviously necessary, beware of delaying it too long—beware of subjecting yourselves to the painful mortification of seeing your patients perish at the entrance of the port—sink at the very moment when you are at length prepared with the very operation which might have saved them. From six to ten ounces of blood will probably be found sufficient to turn the wavering balance in our favour. From one or two friends, males in preference to women, this supply may be obtained; a large injection is not desirable; reaction of a lively kind will sometimes come forward on the subsequent day. Adhere, to these rules and you cannot wander far from the line of duty; and let me ask now, where is the folly—where the enthusiasm, of all this?

You have not, I trust, forgotten that in the former lecture it was observed to you, that of all means for stopping the discharge of blood from the uterus, the most effectual by far is the evacuation of its cavity, either by taking away the child, removing the placenta, or discharging the liquor amnii, according to the circumstances of the case. Although, however, I stated to you the fact, that by so doing you may, in ordinary cases, generally arrest the further discharge of blood, or at all events so far diminish the discharge that it becomes no longer dangerous; yet those who reflect will observe, that in mentioning this practice I did not lay down any rules which may enable you to decide in what cases you ought to interfere with your manual practice, and in what cases you ought to refrain. From laying down those rules I then purposely abstained; for I thought they would be better understood if given in another part of the subject; and to this part we are now arrived.

On conversing with your obstetric friends, or on reading some of our best obstetric authors, such as Denman, for example, or Burns, you will find, as usually happens, that by different practitioners different indications have been marked out, by the intimations of which they endeavour to decide, at any given time, whether it be proper that they should deliver the woman by manual operations, or whether they should leave her to her own resources, confiding entirely to those other remedies which I have already exposed at large. In determining about the delivery, there are some, not unskilful practitioners, who are guided mainly by the measure of the blood discharged, and by the effects the discharge produces. Called to a woman labouring under copious flooding, if they find her approaching to a state of asphyxia, they are anxious to open the uterus as fast as possible, abstracting promptly afterwards both the child and the placenta; but if, on the other hand, they find that the patient is vigorous, and that the measure of the blood lost is by no means copious, from manual operations they refrain. Nor is this rule without its recommendations; with one capital defect, however, it is justly chargeable, as it directs us to deliver in those cases of asphyxia in which the disturbance of the clots is DEATH!

In determining, again, whether they should deliver or not, there are other accoucheurs who consider the effects produced by the discharge of the liquor amnii; and if the liquor amnii have not been discharged, and the hæmorrhage be proceeding, they rupture the membranes, and if the flooding continue, although the water have been evacuated, they take the child away; and, in many cases, this may be found a very excellent rule. In determining whether the child should or not be abstracted by the hand, many are guided by the relaxation of the parts, and the facility of delivery: if they find that the vagina is thoroughly relaxed, and that the mouth of the uterus is open—large as a crown piece, for example—delivery being so easy, they think it may be well to introduce the hand into the uterus, to bring away the child, the placenta, or whatever may be lodging there. But, on the other hand, if under large floodings they find that the softer parts are rigid, an occurrence not common—or if, as more frequently happens, the mouth of the womb be shut altogether, or not broader than a sixpence, they refrain from interfering, laudably fearful lest, by thrusting the hand into the uterus, they should lacerate the softer parts. Again: By the age of the pregnancy, many practitioners are guided: and this rule has the advantage of being one of very easy application, for the period of gestation may generally be ascertained. Now, in the latter months, say the last three or four, under dangerous bleedings, their general practice is to discharge the waters, or, as soon as possible, to carry the hand into the uterus, and bring away the ovum; the relaxation produced by the bleeding, generally facilitating this; while, in the earlier months, say the first three or four, as women of ordinary health and strength rarely sink under the floodings, they refrain altogether from manual operations, and confide in other means for suppressing the bleeding, or in deobstruents, of which the most valuable is, perhaps, the ergot.

In determining respecting the propriety of manual delivery, Rigby has recommended that we should be guided by the situation of the placenta, and if the placenta is lying over the mouth of the womb, whether partially or completely, the hand, he says, should be carried up into the cavity of the uterus, and the child should be brought away. Now this, as a general rule, is certainly correct, and to it, I believe, all experienced accoucheurs adhere. On the other hand, if the placenta is not lying over the mouth of the uterus, either partially or completely, we are advised by Rigby to content ourselves with the mere discharge of the liquor amnii, a beautiful obstetric operation, which in these cases usually renders the condition of the patient secure.

Beware of being deceived by the rule, (if rule it can be called,) which has deceived many, I mean that of waiting for the pains in flooding cases. The *silly rule* is the title by which I would designate it; and

I use the expression, though quaint, under the hope that it may become fixed upon the mind, and may, by the caution it intimates, prevent your being misled. In cases where large quantities of blood are coming away from the uterus, the womb becomes paralytic; the pains which were commencing leave the patient, and the larger the bleeding the less the pain, more especially in the latter months. Understand, therefore, if the want of pains is to be considered at all, that it is rather to be considered as an indication to interfere than to refrain; for you have not, I trust, forgotten, that till the womb is evacuated the woman is never secure; and unless manual means be adopted, if the pains and uterine efforts are wanting, in the latter months especially, how can the ovum come away. You are called, perhaps, to a case in which the blood comes largely from the uterus; you ask the patient, and properly, whether she feels the uterine pain. No, is the reply. Will you, then, act upon the silly rule?—will you tell the patient, come what may I can give no manual assistance, because you have no pain! None, I hope, bred in this school, will be guilty of such folly. In flooding cases, the truth is, with the pains you have very little to do; it is with the flooding—it is with the danger, that it is your duty to contend, and from them, if possible, the woman must be rescued, whether there be pain or not. A woman sitting quietly in her apartment, being seized suddenly with a large eruption of blood from the womb, a practitioner, specious enough, but of small experience in these matters, was promptly called to her assistance. Wo be to the woman under these circumstances, who is deceived by an exterior. Have you any pain? was the question. No, was the reply. So, acting on the silly rule, without even examining whether the placenta was lying or not over the mouth of the uterus, the practitioner went his way. The flooding continuing, he was summoned again, and again he acted on the silly rule; there being no pain, he still determined that nothing could be done; so he went home, and went to bed, and went to sleep!—how one envies such philosophical composure! But we bear the dangers and misfortunes of others with truly admirable resignation. In the middle of the night his repose was broken by the tinkling of his bell, the noise of his knocker, and the clamor of voices—a third summons had arrived; to the house of the patient, therefore, he went a third time, and then he found her dead!—And the consequence of all this was the preparation which I now show you:—With the child in the uterine cavity, and the placenta lying over the mouth of the womb, the parts so relaxed and open that the abstraction of the ovum would have been a very easy task. Beware of the silly rule. In general, to die is no jest—nor is it a jest to die even by the kick of an ass.

Having said thus much respecting the rules and principles by which, in flooding cases, practitioners endeavour to ascertain whether they ought or not to interfere manually in the delivery, I proceed in the next place to prescribe briefly some plain rules by which yourselves may be enabled to decide this nice and important point. Not that I hope, in laying these principles before you, to reduce your practice to maxims so correct, definite, and sufficient, that adhering to them as to the rules of arithmetical operation, you cannot err; but this I persuade myself, that keeping within the influence of these maxims, with the help of a little common sense and common experience, you cannot run out eccentrically into the more extravagant errors.

Remember, then, that in floodings, whether earlier or later, but more especially in the later floodings, if the patient be lying in a state approaching asphyxia, all manual operations are in general improper—disturb the clots, and the patient dies. Watch, therefore, nor venture to resort to the use of the hand till the return of the strength, and the copious or dangerous renewal of the bleeding may render the operation at once necessary and more secure. Remember, further, that if you are called to floodings of the first, second, or third month, although from such flooding often repeated, one miscarriage following another, the health may suffer severely, yet with an ordinary share of vigour in the patient, notwithstanding all our alarms, death but rarely occurs; and, therefore, manual operations not being necessary, should be rejected. It may, indeed, be sometimes advantageous to empty the uterus by means of one or two fingers. This I do myself, in part, because my hand is small; and in part, perhaps, because I may have an overweening confidence in my manual skill. You, however, I strongly dissuade from this practice, till you have been formed by experience, to the higher and nicer parts of obstetric operations. But to proceed. When called to floodings of the latter months, in which the patient, not in a state approaching asphyxia, still retains her vigour, remember, in the third place, that it becomes your duty to ascertain by examination, whether the placenta lie or not over the mouth of the uterus. Now if, the placenta covering the mouth and neck of the womb, whether partially or completely, you cannot deliver by turning, you may, perhaps, advantageously puncture the membranes when accessible; but if, on the contrary, turning may be accomplished, then by this operation, the ovum ought to be promptly brough away; not that this practice is wholly unattended with danger, but that, under the given circumstances, it is, on the whole, the best we can adopt. Remember, lastly, in latter floodings, when the placenta is not lying, whether partially or completely, over the mouth of the uterus, that as soon as the flooding becomes dangerous, the liquor amnii should be discharged, and although the continuance of the flooding may now and then demand the operation of turning afterwards, yet in the majority of cases, such a necessity but rarely occurs; so that to this beautiful operation, you may safely venture to confide.

For the sake of humanity, allow me again to caution you against the silly rule. For the sake of humanity, allow me again to remind you, that from whatever cause the flooding arises, whether in the earlier or the latter months, before or after the birth of the child, before or after the birth of the placenta, so long as the woman is lying in a state approaching to asphyxia, the disturbance of your hand is death. Ah, how I commiserate those unsuspecting but ill-fated victims, who are destined to perish by your forgetfulness of this caution! At this moment live the women who must sink under this mal-practice. Not to introduce the hand into the uterus in any case till pregnancy is advanced beyond the sixth month, is a good general maxim, though not universally applicable. Not to introduce the hand into the uterus before the sixth month of pregnancy is completed—not to pass the hand into the womb, unless the disk formed by the dilatation of the os uteri be as broad as a crown piece, are both of them good general principles of practice, and ought to have their influence; but they are not universal. When the woman is utterly dead, the child may be abstracted notwithstanding. In alarming floodings, it is often safer for your reputation to have another opinion.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE XXV.

On Carburetted Hydrogen or Coal Gas; Cyanogen and Boron.

I HAVE now paved the way for the consideration of a class of compounds in chemistry, which are not of themselves of great importance, but which have a very important bearing upon economical relations; and I shall endeavour to point them out with as much minuteness as is necessary for you to understand their general properties, and thus conclude the history of the simple bodies.

There is often found in mines a large quantity of *carburetted hydrogen*, the composition and general characters of which I mentioned to you in the last Lecture, which is called by the miners *fire-damp*, or inflammable air. When this gas is compressed for the purpose of carrying it about in portable vessels, there is separated from it in the containing vessels, a quantity of liquid which looks like oil, of which you see some here; it is highly inflammatory, and contributes much to the illuminating power of the gas. In examining the peculiar product, Mr. Faraday found there were two distinct compounds of carbon and hydrogen that might be traced in it, and probably more. One of these has the singular property of assuming the solid state at a temperature of about 42°. Here you see some of this substance, which is a *carburet of hydrogen*, and it appears from his experiments to be composed of two proportionals of carbon 12, and of one of hydrogen 1, so that its equivalent is 13. Another substance which he obtained from this liquor, was gaseous at the common temperature, but liquid 0°, and its specific gravity is only $\frac{62}{100}$; so that it is the lightest liquid known. Here then we have two decided compounds of carbon and hydrogen, in addition to those before pointed out. Mr. Brande then showed some of this fluid, and removing the pressure by breaking off the extremity of the tube containing it, it assumed the gaseous state, and was ignited; it gave a good light, being the same as the ordinary gas light, and Mr. Brande observed, that it would be a very valuable fluid for the purpose of illumination, provided it could be obtained in sufficient quantity.

There is a singular body called *napthaline*, a white crystalline body, obtained during the distillation of coal; but of this we have not yet any satisfactory analysis. You see, then, how many compounds there appear to be of carbon and hydrogen; and it may be right here to state, that carbon and hydrogen, as they are combined in naphthaline, and in the liquid body before adverted to, are capable of saturating sulphuric acid, and of thus acquiring the neutralising properties of an alkali; but, as we touch upon this subject again in the after part of the course, we shall not now go into further detail; it was necessary, however, to state the particular circumstances under which the discovery took place, and Mr. Faraday found, that when napthaline was boiled with sulphuric acid, such a combination took place, and he called it *sulpho-naphthalic acid.* There is a fluid called *oil of wine*; now, with regard to this compound, a Mr. Hennet has shown, that it consists of sulphuric acid and hydrogen in the proportion of two of the former to one of the latter; so that here again we are taught the curious fact, that carbon and hydrogen exert the neutralising powers of an alkali upon the acid.

By distilling compounds of carbon and hydrogen, immense quantities of carburetted hydrogen gas are obtained for illumination; and with regard to the process itself, it is so well understood, that it requires no particular description on our part. It consists in exposing coal to a red heat in close vessels, the products of which distillation are separated in appropriate vessels, such as tar, ammoniacal liquor, water, and so forth; the gas, being purified by passing it through lime water, is collected in large vessels, called gasometers, of various degrees of purity. Generally speaking, it is easy to judge of the value of a gas for illumination by its specific gravity; and the nearer it approaches in specific gravity to olefiant gas, which you know is nearly as heavy as atmospheric air, the better it is for illumination: the ordinary weight of coal gas is half as light again as air, but the heavier it is, generally, the greater is its illuminating power. In the decomposition of coal for illumination, the process is not unlike that of the distillation of coal; that is, it consists in passing the coal gas, and other products given out from the coal, through heated tubes, which are afterwards collected in vessels where some of the products are separated by condensation, and then into others, where it is purified by washing, by which its illuminating power is increased. Tthere are two or three facts connected with this subject, which it will be right to point out to you. In the first place, let us see the result of the distillation of a chaldron of coal, and we shall find it to be about this:—

11 sacks of coke, worth......	£1	4	9
breeze, a small quantity, worth	0	0	2½
130 pounds of tar	0	9	6½
14 gallons of ammoniacal liquor	0	3	6
8000 cubic feet of gas, at 15*s.* per 1000 cubic feet	6	0	0
	£7	18	0
Now a chaldron of coals costs, on an average, not more than	£2	8	4
Allow for wear and tear......	0	8	0
	£2	16	4

Leaving a considerable balance, as you see, in the hands of the gas manufacturer. Seeing that such a profit is left, you may ask how these things have not answered better, which was principally owing to the defective machinery employed; but, now that the matter is better understood, a considerable profit must accrue to the manufacturer, if proper management be adopted. Now, as to the expense of a quantity of this gas, equivalent to the light of seven candles per hour, it has been ascertained that an Argand burner, equal to seven candles, consumes a cubic foot and a half in an hour; and, if the lamps be fed with spermaceti oil, the quantity consumed in that time costs three pence, mould candles cost three pence halfpenny, and wax candles fourteen pence; and this shows you the great economy of using olefiant gas over other modes of illumination.

An apparatus has lately been constructed by Messrs. Taylor, for the conversion of oil into gas. It consists of a furnace with a bent iron tube containing fragments of brick or coke; and into this tube, when red-hot, the oil is dropped; it is immediately decomposed, and converted into carbon, and a mixture of carburetted hydrogen and hydrogen. Two or three cubic feet of this gas, may be considered as equal to five or six of coal gas for the production of light. The commonest fish-oil, unfit for burning in the usual way, may thus be made to afford an abundance of excellent gas. From several experiments which I made upon this subject, it appeared that purified *cool gas* rarely contains more than 40 per cent. of carburetted hydrogen, or olefiant gas, whereas, *oil gas* affords generally about 75 per cent., thus showing its superiority.

It sometimes happens, that a large quantity of carburetted hydrogen gas is contained in the bowels of the earth, especially in coal mines; and that, when the miners make an opening into the excavation containing it, the gas rushes out with great violence; and this is called by the miners *a blower;* and, if a light should happen to come into contact with it, you know the consequence is, that the whole of the mine becomes like one vast piece of artillery discharging itself for many hours, with the almost certain destruction of those who may be in it at the time; the men and machinery being often projected through the shaft into the air; and, when the explosion is not sufficiently violent for this, they are most dreadfully burnt, and often made cripples for life.

Fortunately, a successful mode of preventing these accidents has been furnished by the substitution of the *safety lamp* of Sir Humphrey Davy, for the unprotected light of candles and common lamps. The principle upon which this lamp is constructed, has been explained to you on a former occasion, when speaking of the properties of flame; but I shall now show you the particular application of it. If I immerse the lamp in a jar of this gas, you will see that the flame of the lamp first enlarges, and is then extinguished, the gas burning in the lamp with a pale blue flame; but the flame cannot escape to the gas on the outside, in consequence of the cooling power of the cylinder of fine wire gauze, by which the wick of the lamp is surrounded: when brought again into the atmosphere, the wick rekindles, and light is again produced. The safety of these lamps depends entirely upon the perfect state of the wire gauze, and on the close adaptation of it to the lamp, so that no aperture may be left through which the flame may pass. So much then for the compounds of carbon and hydrogen.

Carbon combines with *nitrogen*, and forms a peculiar compound, to which the term *cyanogen* has been applied, but we shall call it *carburet of nitrogen*, which appears, on many accounts, preferable. In order to produce it, I shall introduce into a glass tube a small quantity of *cyanuret of mercury*, or ferro-prussiate of mercury, as it has been called, and apply heat to it. A gas comes over, which is the gas in question. (A light was applied to the gas at the mouth of the retort, and it was seen to burn with a beautiful purple flame.) During its combustion it forms nitrogen and carbonic acid, therefore its composition is shown to be carbon and nitrogen; a hundred cubic inches weigh 55 grains and six hundredths; it is condensable into a liquid state, under a pressure of three atmospheres. Now its combination shows us, that it is composed of two proportionals of carbon 12, one of nitrogen 14, its equivalent being 26. This very singular body enters into combination with oxygen to form cyanic acid; with chlorine to form chloro-cyanic acid: and with iodine, to form iodo-cyanic acid. It also enters into combination with *hydrogen*, and produces a body upon which it will be necessary here to say a few words, although it will come again before you under the head of Prussian blue. This combination with hydrogen forms *prussic*, or *hydrocyanic acid*, which has a strong, penetrating smell, resembling that of bitter almonds, and is eminently poisonous. To obtain this acid, I shall introduce some cyanuret of mercury into a retort, on which I shall drop a little muriatic acid; apply heat carefully to the mixture, and receive the product in a bottle surrounded with ice or snow, and thus obtain the acid in a condensed and liquid state. Its specific gravity to hydrogen is as 13 to 1, and a hundred cubic inches weigh 28.57 grains; its equivalent is 27, and it is therefore composed of one volume of cyanogen and one of hydrogen. It has been used occasionally in medicines, and formulæ are given for its preparation; it forms a class of compounds, by uniting with certain bases, called hydrocyanates, or what have been more generally known under the name of prussiates, from the substance in which it was first found having been called Prussian blue. When sulphur, and the salt called prussiate of potash, are mixed together and fused for some hours, and water added, a peculiar compound is obtained, which consists of sulphur and cyanogen, to which the term *sulpho-cyanic acid* has been given; it will be spoken of more by and by; but one of its properties is to precipitate the *per*salts of iron of a red colour. This compound was originally discovered by Gay Lussac.

Carbon and *Sulphur* combine and form a peculiar liquid, which has been called the *sulphuret of carbon*, which may be be obtained without difficulty by passing sulphur over red hot charcoal; which process you see here going on. It may be obtained at once in the liquid state by collecting it in a condensing receiver: it is very inflammable, burning with a pale blue flame, forming no moisture by its combustion, but an abundance of sulphurous acid and of carbonic acid. It is composed of one proportional of carbon and of two of sulphur, and therefore represented by the equivalent 38; but it is not worth our while to enter upon its compounds.

We here then take leave of the chemical history of carbon, in reference to the substances already described; and there now remains another substance, the last to which we shall revert in this class of bodies, namely, *boron*.

There is a body well known in commerce under the name of borax, which is a compound of boracic acid and soda; and, if you dissolve this in water and add sulphuric acid to the solution, these will separate, as you see here, a quantity of white flakey crystals, which, when collected and washed, are found to be boracic acid, not quite pure, but nearly so. It used to be known in old pharmaceutical works, under the name of *Homberg's sedative salt*.

In order to obtain the *boron*, a variety of processes have been recommended, and some latterly of a very simple nature; but I know nothing of them practically. It forms a great many compounds, which have been described by Berzelius, but none of them are of great importance. Boron unites with *oxygen*, and forms *boracic acid*, which, uniting with certain bases, forms a class of salts called borates; but there is still a great dispute about the nature of boracic acid, and therefore its equivalent is not yet settled, and I shall not go on with the disputed points, but refer you to that author for information upon the subject. I should state to you, that borate of soda is found in a native state, especially in volcanic regions and in the

Lipari islands; but formerly it was obtained exclusively from the East Indies. I might here, perhaps, advert to the substance *selenium*, discovered by Berzelius, and ranked by him as a simple body; but it appears rather to belong more from analogy than experiment to the class of metals, the consideration of which we shall commence in the next lecture, by Mr. Faraday.

FOREIGN DEPARTMENT.

LARYNX OF MAMMALIA.

The larynx of mammalia differs but little in its conformation from that of man. None of the larger cartilages of the larynx are deficient, and the opinion, that some animals of this class want the epiglottis, is quite erroneous; in the *Bat*, however, it is extremely small. The size of the larynx is proportionate to the strength of the sounds which the animals utter. The absolute size of the larynx of the *whale* and the *elephant* is the largest, but, comparatively, the larynx of the *lion* is of still greater extent; which circumstance accounts for the powerful roar of that animal. In this case, the anterior vocal ligaments contribute more than the posterior to the formation of voice, and there are not any vocal cavities. In the *hog*, on the other hand, the vocal cavities are of great extent, and the inferior ligaments strong. The formation most resembling that of man, is found in apes; but, notwithstanding, the finer modulations of the voice are impeded by sac-shaped dilatations, which tend to obscure it. In the *horse*, the vocal ligaments are broad and strong, and are covered by a very delicate and nearly falciform membrane, which is attached by its middle to the thyroid cartilage, and has its extremities resting on the outer edges of the rima glottidis. The vibrations of this membrane produce the neighing of this animal. The peculiar sound uttered by the ass is produced by means of a similar membrane. The *cat* has two delicate membranes lying under the ligamenta glottidis, which probably cause the purring noise which it makes..

In the trachea of some mammalia, the cartilaginous rings are found complete, as, for instance, in several of the amphibia, viz. the *seal* and *porpoise*. The length of the trachea corresponds to that of the neck, though without any proportion between it and the number of its rings, of which there are, for instance, from 17 to 21 in man, 53 in the stag, and 78 in the seal. In the *lion* and *bear*, there is a considerable space between the extremities of the rings.

DISEASES OF FISHES.

Fishes, in a domesticated state, are subject to various maladies, the cause and cure of which have not been successfully ascertained. Trouts, carps, and perches, are subject to various cutaneous diseases. During severe winters, when the surface of the ponds in which they are kept is frozen over, the various kinds of fishes seem to contract diseases, and, in such cases, great mortality often prevails. This seems to arise from want of air in the water, and can only be prevented by removing the fish to a deeper pond, through which there is a constant current. In some rigorous seasons, the extent of this mortality is most alarming; an example of which occurred between 1788 and 1789, when the inhabitants of some districts of France lost nearly all their stock of carp, pike, and tench.

HERNIA AT THE FORAMEN OVALE.

The following case of hernia at the foramen ovale, is detailed by Dr. Gadermann, of Landshut, in a tract which he published on the subject in 1823:—

A widow, 75 years of age, after being exposed to cold, from remaining too long in church, was attacked on her return home with all the symptoms of violent enteritis. The most active antiphlogistic treatment was adopted, but the pain did not abate, nor were the bowels relieved. On the fifth day stercoraceous vomiting took place, neither the inguinal nor femoral regions presenting any appearance of swelling or pain. It was only a day or two before her death, that she complained of pain at the upper and inner part of the thigh, beginning at the groin, and extending downward, but no swelling or sign of hernia could be felt here; evacuations from the bowels were at length obtained; on the ninth day the symptoms abated, but the patient sunk, and died on the fourteenth from the attack.

Dissection.—On opening the cavity of the abdomen, a knuckle of small intestine was found adherent to the foramen ovale; the aperture which serves for the transmission of the obturator vessels and nerves, was about an inch in diameter; through this opening passed the hernial sac, which was about six inches in length, extending beneath the pectinalis muscle, and the long and short heads of the triceps, the latter head being much thinner than natural. Within the sac lay a portion of the diameter of the small intestine, adherent internally to the foramen ovale. This portion consisted of the parietes of one side of the gut passing through the aperture into the sac, and dilated into a diverticulum, measuring four inches and a half in breadth, the parietes being as thin as the finest writing paper; whilst the opposite parietes of the gut remaining within the abdomen, were thickened as much as a quarter of an inch. The canal of the bowel at this part, opposite the diverticulum, was so reduced in size, as scarcely to admit the introduction of a large bougie. The obturator artery arose from the epigastric, and ran first on the inner side of the neck of the sac, and then downward, lying anterior to it. The sac itself was adherent to the muscles.

DISEASES OF THE BLADDER.

M. Louis, in a late Number of the Repertoire d'Anatomie, (tom. iii. trim 3,) makes the following observations on the rarity of affections of the mucous membrane of the bladder, as compared with similar affections of the other viscera.

Whilst in the course of acute and chronic diseases, in the latter especially, most of the viscera undergo considerable changes of structure, the bladder remains almost always unaltered; a fact which appears the more worthy of attention, when we reflect on the functions of this viscus, and the great alterations to which the liquid which it contains is exposed. The urine is, indeed, more or less acrid and turbid in numberless complaints, none of which occur without the composition of the fluid being altered; from which one would infer, *a priori*, that inflammation of the mucous membrane which lines it, is frequent. Nevertheless, in five hundred subjects which died from all kinds of complaints, and whose bladders were examined with care, we only found in six cases its mucous membrane injected in a few points, without softening or thickening. In one case we saw it softened in its whole extent, although it preserved its natural colour and thickness. In another, we found the same changes, although in a very limited degree. In a woman, who died from cancer of the uterus, the bladder was black, thick, and intimately connected with the submucous tissue, which had undergone the same lesion in a part of its extent. In a fourth case, a woman who died from fever, the bladder was slightly ulcerated. These four cases and two others, are the only instances of lesion of the mucous membrane of the bladder which we have observed, omitting two cases of perforation of this viscus, consecutive on cancers of the uterus, and in which the mucous membrane surrounding the destroyed part was not sensibly altered. We may observe, in addition to what has been already stated, that it is not unfrequent to see cases where calculi have probably existed in the bladder for a long time, and at the same time to find the mucous membrane unaltered, showing the degree of resistance which this structure opposes to the alteration of its tissues.

DR. HARRISON ON THE COLLEGE OF PHYSICIANS.

To the Editor of THE LANCET.

SIR,—I WRITE to request a place in your ensuing Journal for the subjoined communication, sent some time since for insertion in the Literary Gazette, that the bane and antidote might appear together. Its reception was acknowledged so long ago as the 15th of last month. After two personal interviews with the editor subsequently, and a written application to him either to publish, or send back the letter, of which I had no copy; it was only returned the forenoon of Jan. 21st. The editor's motive for not publishing the letter, (he gives none for detaining it,) is conveyed in the following terms: "Nearly half of its argument is superseded by the simple fact of the prosecution having been commenced." To this reasoning I may reply, 1st, that its present unfitness (should the fact prove to be so) arises from the editor's own neglect. And, 2dly, that it will probably become apparent, in the course of a little time, that every material part of the letter remains still pertinent.

I am, Sir, yours, &c. &c.
EDW. HARRISON.
Holles Street, Jan. 24, 1828.

To the Editor of the LITERARY GAZETTE.

SIR,—HAVING read in the Literary Gazette an article which contains unjust animadversions upon my letters to the late Censors of the College of Physicians, I request a small space in your ensuing number to repel the accusations.

You observe, "In our last number, in consequence of their having suffered the legal Michaelmas terms to elapse without bringing matters to an issue, we were induced to express an opinion, that the College of Physicians had abandoned the prosecution of Dr. Harrison, and thus virtually opened the profession to gentlemen hitherto excluded by their charter from practising as physicians in London, and within seven miles around."

I desire to inform you, that the college have not merely permitted a single term to elapse; they have suffered many terms, and even years, to pass away, since my determination to try the disputed points was first made known to the Fellows, through their late colleague, Dr. Baillie. I, for the third time, repeated the same offer, upwards of seven months ago, to another Fellow of the college, Dr. Chambers, who had refused to meet me in consultation, because I was not a licentiate of the college. You were, therefore, fully warranted under the circumstances, in drawing your inference, "that the College of Physicians had abandoned the prosecution of Dr. Harrison, and thus virtually opened the profession to gentlemen, hitherto excluded by their charter from practising as physicians in London,* and seven miles around." You go on to say, "we are, however, desired, by an esteemed friend, an eminent member of the college, to contradict this statement, and of course qualify our inference from it. He writes to us in these words:—"The College would betray the trust reposed upon them by the legislature, and would commit a civil fraud on the Licentiates, from whom they have taken fees for admission, were they to forbear exercising the power given them by their charter, confirmed by parliament, in suing Dr. Harrison for the penalties to which he has rendered himself liable, by acting as a physician without a license, so soon as they shall have obtained what their legal advisers consider sufficient evidence of his practice, so as to satisfy a jury."

On the first part of the foregoing paragraph, I have no remarks to offer. The matter rests entirely between the Fellows and the Licentiates. My solicitude is to remove all undue obstacles to settling in London, from the graduates of my own order, who have always constituted a very great majority of British physicians. They have received so much encouragement, in the provinces of England and Wales, that you very seldom meet with a Fellow or Licentiate in the country. Many of this class have lately established themselves in the capital, where, in defiance of the College, they have already succeeded to no ordinary confidence and distinction. It is quite evident, that unless the Fellows assume courage enough to prosecute me for the penalties to which they lay claim, and are successful, they cannot hope to restrain the practice of any other physician who may brave their authority, and decline to be connected with their body. In that case, their boasted pretensions are at an end, and their new College reduced to an useless mausoleum.

It may not be generally known, that so long ago as November, 1767, Lord Mansfield delivered his judicial opinion, respecting the College in these memorable words: "I have a great respect for this learned body; and if they should think proper to hearken to my advice, I would wish them to consider whether this may not be a proper opportunity for them to *review* their statutes. And I would recommend it to them, to take the best advice in doing it; and to attend to the design and intention of the crown and parliament in their institution. I see a source of great dispute and litigation in them, as they now stand. There has not, as it should seem, been due consideration had of the charter, or legal advice taken in forming them." As the college have hitherto disregarded the friendly advice and admonition of this accomplished judge, the time is arrived when they should be forced to comply with the interests of the profession, and the public.

"Our correspondent further assures us, that, notwithstanding the profession of Dr. Harrison, in a letter from him to the late censors, dated the 4th of August, and subsequently published in several newspapers, and other periodical works, "that he had furnished his solicitors, Messrs. Tennant, Harrison and Tennant, with instructions to give every facility to a legal investigation of (what he terms) the *assumed privileges* of the college;" an admission of his having practised for one month (with the view of bringing the question to an immediate issue) has been refused by these gentlemen, when applied to for that purpose." The preceding quotation of your "esteemed friend, an eminent member of the college," is correct, as far as it goes; but in suppressing the conclusion, he has contrived to misrepresent the whole passage. He should have added, to finish the sentence, and render the sense complete, that "they (the solicitors) were also directed neither to compromise my rights, nor those of my professional brethren." The reader will perceive in this statement how much an "esteemed friend, and an eminent member of the college," will condescend to mystify and pervert when his passions are engaged, or his interest is in danger.

In order to understand this part of the Fellow's communication, and his misrepresentation of my letter, it will only be necessary to premise, that the powers, under which the College profess to act, are of two kinds, viz. arbitrary by-laws of their own creation, and powers issuing out of the charter of Henry VIII.

1st. These by-laws are obviously, in my opinion, not only illegal, but in direct opposition to the letter and spirit of the charter. They are likewise highly injurious to medical science. Carefully excluded from mortal view, they are of a character the most revolting, and are blindly submitted to by candidates, under circumstances so humiliating, that I will never voluntarily apply for the licence. I am moreover confident, should a decision upon them be ever obtained, it will be not merely unfavourable, but disgraceful to the Fellows.

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* Dr. Harrison wrote, Jan. 2d, 1828, to inform the editor of the Literary Gazette, that, since writing the above, the college had commenced their action. The writ was served on his solicitors the twenty-second of last month. He adds, the profession and the public may now anticipate a thorough investigation, and final decision, of questions highly important to medical science, and humanity.

Let them only show a disposition to submit their by-laws to legal examination, and every assistance will be afforded, on our part, to bring the question to a satisfactory decision without delay, and at little expense. This was the extent of the facilities to which I alluded. I by no means engaged to make whatever admissions the college might desire.

2dly. The offer to afford every facility to a legal investigation of "assumed privileges," was of course entirely confined to the college by-laws. A power to sue unadmitted physicians for exercising their profession is distinctly given in the charter, and, consequently, its employment would be legitimate, and not assumed, "*if the College of Henry VIII. were still in existence, and in power.*" Though the plaintiff's application to my solicitors for assistance to enable him to commence proceedings against their client, was, I think, not only extraordinary but highly improper, *until he had tried every other expedient to no purpose*, we should have complied with the request, had we not entertained a fear, that the admission would be interpreted, by the independent physicians, into a surrender of interests, which I have engaged to protect. I may further remark, that as it now appears the College are not in a condition to institute proceedings against me without my own assistance, the object for which I contend is wholly attained. The Fellows cannot be said to possess the power of superintending the medical profession, and are, therefore, reduced to what a former learned president of their body, Sir George Baker, was wont to call them "a brutum fulmen." Notwithstanding the preceding observations, on being relieved from my apprehensions about the rights of the independent physicians, the College, *having shown their own inability to institute proceedings*, will find me ready, whilst I deny their authority, to entertain any reasonable proposition, which is calculated to bring their assumed and all other claims fully and fairly under legal examination. The event of this contest will show whether the want of evidence is a real obstacle, or merely a pretext to conceal the want of title.

I again repeat, that in these proceedings I am neither influenced by feelings of animosity towards the College, nor any of its members. I am actuated entirely by a wish to remove the inveterate prejudices, and hostility, which have so long disunited the faculty and diminished their usefulness.

I have the honour to be,
Sir,
Your very obedient servant,
Edw. Harrison.

GUY'S HOSPITAL

RUPTURE OF THE URETHRA, CONSEQUENT UPON INJURY, FOLLOWED BY EXTRAVASATION OF URINE AND EXTENSIVE SLOUGHING.

(*Abridged from* Mr. Key's *Case Book.*)

A boy, fourteen years of age, was admitted into Accident Ward, on the 19th of November, under the care of Mr. Key, on account of severe injury to the perineum. The accident had occurred a few hours previously, from his having fallen astride a chair, with considerable force; severe pain was experienced at the time, and shortly after, desire, but inability, to void his urine; and, in the course of half an hour, the scrotum, with the perineum, became swollen and tender.

When admitted, the scrotum was much distended generally, and at its back part was a large spot of ecchymosis; there was also some effusion into the prepuce. The scrotum was freely scarified, fomentations were directed, a metallic catheter was introduced and retained in the bladder.

20. Expresses himself much relieved; the constitutional disturbance slight. A large quantity of fluid, in which the smell of urine is faintly perceptible, has oozed from the scarifications; the scrotum is highly inflamed and tender upon pressure, but otherwise free from pain. Ordered aperient medicine.

22. Until yesterday afternoon every thing was favourable, he then became very feverish and uneasy. This morning the pulse is quick and weak. That portion of the scrotum described as ecchymosed on admission, is now of a livid colour, and the scarifications have a sloughy appearance. *The lower part of the abdomen is of a yellowish green hue.* Ordered one grain and a half of quinine, with two of camphor, every six hours, and a poultice of stale beer grounds to the scrotum.

23. Sickness, hiccup, and restlessness; the surface of the body is cold; the pulse upwards of 130, small and weak; the tongue coated with a brown fur. *The catheter came*

out during the night, and a considerable quantity of urine flowed through the incisions. There is much tenderness in the right hypogastric region, and especially near to Poupart's ligament.

24. The tenderness in the hypogastric region is much increased; in consequence of this, and under the impression that infiltration was still going on, Mr. Key made an incision through the perineum, and passed a female catheter by the opening into the bladder. On examination with the finger, it was found that a portion of urethra, of about two inches in extent, was destroyed by sloughing, for about two-thirds of its calibre; this was anterior to the triangular ligament. Ordered to take ten minims of laudanum in a dose of julep of ammonia; to have brandy and arrow root.

25. The urine escapes freely by means of the catheter in the perineum, and the patient is relieved. Ordered porter.

29. The slough at the back part of the scrotum is now detached, leaving a deep ulcer, and laying bare the vaginal tunic of the testicle. The bowels are much relaxed.

From the date of the last report to the 6th of December the boy progressively got worse; the diarrhœa was urgent, and the tenderness about Poupart's ligament had continued. An incision was made near to this part, but no matter escaped from it. On the 9th of December there was a discharge of fœtid pus under the use of poultices, and the opening was now found to be connected with an extensive abscess.

The vital powers gradually becoming exhausted, the boy at length sunk on the 15th, nearly one month from the date of his admission. The friends would not permit the body to be examined.

We perceive that *some* particulars of this case have been published, having been culled from Mr. Key's Case Book without the slightest acknowledgment. Of this, however, it is probable, that Mr. Key may not complain, the book being constantly at the Hospital, open to the inspection, and for the use, of all the students; but we think that he has just ground of complaint, when the following sapient observations, appended to the case, are attributed to him.

"In those instances (of ruptured urethra) which had come under his observation, extravasation of urine had been arrested by passing a catheter and leaving it in the bladder; *the inflammatory process already produced by the infiltration of urine setting bounds to the escape of urine, beyond the cells of the scrotum!*"

SUPPOSED CASE OF RUPTURE OF THE URETHRA, CLOSURE OF THE ANTERIOR PORTION, AND DISCHARGE OF THE URINE BY A FISTULOUS OPENING IN THE PERINÆUM.—OPERATION.

On the 5th of December, a boy, fifteen years of age, was admitted under the care of Mr. Key, with a fistulous opening at the lower part of the perineum, through which it was stated the whole of the urine was discharged. The history of the case was briefly as follows: three months previously, the boy fell from a tree upon a hedge-stake, which struck the perineum; there was no wound, but great ecchymosis was the consequence. There was inability to void the urine, and a catheter was therefore employed, for the first three days after the accident; the urine drawn off was bloody. From this time, it appears, the catheter was not employed; the case was, in fact, neglected. Leeches, in the first instance, had been applied to the perineum, and shortly after the boy observed that there was an opening at this part through which the urine issued; it was at first, however, so small, that he attributed it simply to the bite of a leech. Eventually it happened, that the whole of the urine passed through the perineal fistula; such was the condition of the boy when admitted: the stream of urine which came from the opening was about equal in size to a large thread.

Mr. Key having found it impossible to pass a catheter, determined on removing the obstruction, by laying open the urethra in the perineum. This operation was effected a fortnight after the patient's admission: a free incision was made along the raphe, a catheter having been previously passed down from the glans to the point of obstruction. It was now evident that a rupture of the urethra had taken place, and that the lower orifice of the anterior portion had contracted adhesions, so as, in fact, to be completely impervious. In consequence, some difficulty and delay occurred in carrying the instrument forward, but it was, at length, accomplished: the catheter passed into the bladder, and there retained. The fistulous aperture in the perineum, was laid open at the same time with the urethra.

In the progress of the case, nothing material transpired; the catheter was kept in the bladder five weeks, and the wound gradually healed over it.

At the period when this report was written, Jan. 26, the boy still remained in the hospital, but was quite well, and able to discharge his urine, without obstruction, by the natural passage.

Two cases of rupture of the urethra, consequent upon injury to the perineum, were treated at St. Thomas's Hospital last year, the one by Mr. Travers, and the other by

Mr. Green. In both of these cases there was complete retention of urine, and not the slightest extravasation; the operation of laying open the urethra, in perineo, was resorted to, and, in each case, there was much difficulty in finding the opening of the posterior portion of the urethra.

EXTRAVASATION OF URINE, FROM ULCERATION OF THE URETHRA, WITH STRICTURE.

The particulars of a case of the foregoing description, which occurred during the last admission week of Mr. Key, may be briefly related here. The patient, an old man, was brought to the hospital, labouring under all the symptoms of extravasation of urine to an alarming degree. The scrotum was intensely inflamed and swollen to an enormous extent, as was also the perineum; there were, in addition, redness and tenderness of the whole abdomen, as high as the umbilicus. The constitutional symptoms were urgent, the pulse was very feeble, the countenance anxious, and the tongue brown. The infiltration, according to the man's account, had been going on nearly a fortnight, it being about that time since the swelling commenced: he had been affected with great difficulty in passing his urine for several years.

The treatment adopted by Mr. Key was immediately to lay open the urethra, by a free incision in the perineum, when a large quantity of ill-conditioned pus and urine escaped. It was particularly remarked, that the swelling of the scrotum directly subsided on the exit of the fluid from the perineal opening, so that it was not thought necessary to scarify it. A female catheter was passed from the wound to the bladder, and retained. An incision was made into each groin, and poultices applied: tonics and stimulants were prescribed internally.

In the course of three days, the extent of redness on the abdomen was diminished, but copious suppuration, with destruction of the cellular tissue, had occurred at the lower part of the belly. Free openings were made, from time to time, and the ill-formed pus, mingled with urine and sloughs, discharged; the parts had, at length, assumed a healthy aspect, but the strength of the patient was so far exhausted in the attempts at reparation, that he sunk at the expiration of twelve days.

The operations performed at this Hospital since our last report, are—amputation at the fore-arm, in consequence of malignant disease (*warty cancer*) of the wrist and hand; amputation of the thigh, in a case of severe compound fracture of the leg; and operation upon a hare-lip, with a child *only three weeks old*. The two former were by Mr. B. Cooper; the latter (which has been unsuccessful in its result) by Mr. Key.

MIDDLESEX HOSPITAL.

Nowlan, in whom, our readers will recollect, the carotid artery was tied for a pulsating tumour on the head by Mr. Wardrop, in the Hospital of Surgery, was admitted a short time since into this Hospital, for the treatment of lumbar abscess, of which he eventually died. The appearances on dissection were as follow:—

On examining the part where the ligature had been applied, it was found that the common carotid artery was obliterated, and that the internal jugular vein was apparently impervious to a considerable portion of its extent; on this point, however, we should have been more thoroughly satisfied, had the gentleman who conducted the dissection injected the veins. The par vagum was in its natural condition and situation (between the vessels). On continuing the dissection, the tumour on the head was found to consist of a dilated and tortuous artery. As far as we could judge, the accompanying veins presented the natural appearance, the subjacent bone had undergone partial absorption, the pericranium, however, remaining entire. On examining the brain, nothing remarkable was found until arriving at its base, where a slight purulent effusion presented itself, and the substance of the brain contiguous was softened, a condition which may be attributed to the rapid decomposition which set in after the patient's death. Pus was discovered also at the head of the spinal chord. Attention being directed to the seat of that disease for which the man was received into this Hospital, namely, abscesses of the loins, as may have been expected, a large quantity of pus was found, and the sacrum was for some extent denuded of its periosteum.

The history and post-mortem appearances of this case would have been most interesting and instructive, had the dissection been properly conducted after suitable preparation of the parts. For the sake of science, we regret that even injection had not been previously passed into the vessels. The conduct of the examination was, altogether, ill ordered and most defective.

Scarcely any cases of the least interest have been admitted into this Hospital during many months past, and the place would be a continual scene of dulness, were it not for the occasional puns of Joe Burns.

ST. THOMAS'S HOSPITAL.

CASES OF RETENTION OF URINE FROM STRICTURE.—MR. GREEN'S CLINICAL REMARKS.

In a clinical lecture, delivered on Friday, the 18th ult., Mr. Green made some observations on two cases of retention of urine, lately under his care.

The first case was one of a trivial nature, and speedily relieved: it was an instance of *inflammatory* or *spasmodic* stricture, as it is usually termed, supervening upon some degree of permanent obstruction. The second case was of the same kind, but more obstinate, resisting all attempts to overcome the obstruction, and thus rendering an operation imperative, in order to relieve the distended state of the bladder.

The patient, a sailor, about thirty years of age, came into the hospital on the evening of the 31st of December, labouring under complete retention of urine. He had been affected with gonorrhœa for several weeks previously; but a few days before admission the discharge entirely ceased. The interruption to the flow of urine came on at this time, and at length increased to such a degree, that complete retention ensued. A catheter had been employed with considerable force, but without effect, previous to his admission.

The treatment employed by the dresser consisted in the abstraction of blood from the arm, the use of the warm bath, a dose of castor oil, with a full dose of the black drop, and gentle attempts to pass the catheter. The instrument could not be introduced, but the other means afforded much relief, and the man continued to pass small quantities of urine throughout the night. He continued to be relieved throughout the following day, January 1: the bowels had been freely open early in the morning, and the warm bath was again used at eight o'clock. In the evening, however, the symptoms became much aggravated, and it was thought necessary to send for Mr. Green at about one o'clock in the morning of January 2. At this time, the patient was suffering much; the abdomen was much swollen and tender, as was also the perineum. Mr. Green made a slight but unavailing attempt to pass a catheter, and discovered what he supposed to be a false passage. Upon this, he determined upon an operation; having passed a catheter down to the point of obstruction, and placed the patient in the same position as in the operation for lithotomy, an incision of about an inch and a half in extent, was made *along the raphe of the perineum*, and the urethra thus fairly laid open. Finding it, at first, impracticable to pass the male catheter onwards to the bladder, a female catheter was introduced from the wound without difficulty, and a large quantity of urine drawn off: the male instrument was subsequently introduced, and retained in the bladder. In making the incision, a large vessel was divided; there was no jet, but a considerable flow of blood, and pressure was, in consequence, employed to restrain the hæmorrhage.

At noon of the same day, when Mr. Green visited the patient, the abdomen was tender, the pulse hard and contracted: blood was in consequence taken from the arm, castor oil exhibited, and fomentations applied to the belly. From this time the patient went on well, the water passing freely through the instrument, and the wound progressively healing.

On the 8th there was an inflammatory swelling of the testes, and twenty leeches were applied, which effectually subdued it.

At the period when Mr. Green delivered his Lecture, the wound had nearly healed, without any thing of further importance having transpired.

Mr. Green especially pointed out the tenderness of the abdomen and perineum preceding the operation, and said, that whenever this symptom had manifested itself, then it was high time to operate. The mode of relieving the retention of urine, by an incision into the perineum, he considered as particularly applicable in those cases where the cause of obstruction is in the perineal portion of the urethra; as, for instance, an abscess, or permanent stricture, &c. Mr. Green further observed, that he made the incision *along*, and not on the side of the raphe; and he usually did so, because it facilitated the finding of the urethra. He had seen the operation fail, even in skilful hands, when an attempt was made to lay open the urethra, by cutting on the side of the raphe, as in the operation for lithotomy. It was to be remembered, that, in the cases under consideration, there is no guidance from the staff, as in cutting for stone. With respect to the hæmorrhage, which, as we have remarked, occurred in the operation, Mr. Green said, that he had operated similarly in a great number of cases, and had only met with two instances of bleeding; in both of which it was readily restrained by pressure, as in the present case.

THE LANCET.

London, Saturday, February 2, 1828.

Midwifery seems to have made less progress in Ireland, than in any other part of the British empire. By this observation, we do not mean that there have not been at all times, in Dublin, and in the principal towns of the provinces, men competent to the application of obstetric science in the most efficient manner; we only mean to assert, that the number of practitioners, writers and teachers, has been less in proportion to the population, the wants of students, and the general mass of the profession of that country, than in either England or Scotland. Until very lately, there were many districts in the island, to the extent of twenty or thirty miles in circumference, in which no practitioner of midwifery resided; and where, in consequence of this deficiency, the most melancholy cases have occurred without the aid of art being attainable. Its medical literature cannot yet exhibit a single treatise in use among students, or even known as a work of reference in this branch of science; while Britain, both north and south, has been profuse in productions of this description. We need scarcely quote the names of Hunter, Denman, Blundell, Davis, Burns, and Hamilton, as a contrast to the Clarkes, Evorys, and Labatts of Dublin—men, who, though highly distinguished as accoucheurs, have left no record of their experience to profit posterity, or to exempt their country from the imputation of defective authorship. It may surprise our English and Scottish readers still more, when we assure them that, in a city so large as Dublin, and a school where there are so many prosecuting their studies, there are but two professors of midwifery, and these by no means comparatively well attended. In the University, or School of Physic, there is no professorship of this kind existing; the College of Surgeons very properly founded one, but owing to the neglect of the gentleman appointed, and still more to the want of a clinical establishment for the illustration of his precepts, his lectures, which, indeed, were but seldom delivered, were all but entirely neglected; the Lying-in Hospital, for causes which we shall immediately point out, is but ill-calculated to realise the objects of a school of midwifery; and to supply this defect of obstetrical instruction, there is not a single private teacher of the art, that we are aware of, in the Irish capital. In London, on the contrary, besides the professors attached to the different private schools, there are various teachers attended by respectable classes for nine months out of the twelve; in Edinburgh, besides the university professor, Dr. Hamilton, who lectures generally to one of the most numerous classes of that institution, there are many other teachers exclusively devoted to the tuition of midwifery; the same holds good with respect to Glasgow; and, in all these places, the private lecturers are well attended, and are able, without the assistance of a clinical establishment, to afford their pupils the most ample opportunities of instruction among the families of the poor. Why Dublin should differ so materially from the usages of the preceding cities, and be so obviously defective in so essential a feature of medical education, and professional policy, as that of the tuition and general practice of midwifery, is rather surprising. Its population, famed too for its fertility, is extensive; and it possesses a house of maternity, reputed one of the largest in Europe, from which a stimulus to obstetrical pursuits might be naturally expected to have been communicated to the profession throughout the country. Paradoxical as the assertion may appear, we believe this gigantic emblem of national fecundity to be the principal, if not the sole cause of the neglected state of midwifery in Ireland. Whether it be as large as any institution of the kind in Europe, or not, there can be no doubt whatever that its abuses are fully in proportion to its magnitude; for, in the whole range of medical establishments, in this or any other country, we know of none borne down by a greater mass of absurd and perverse arrangements, than the Lying-in Hospital of Dublin. From its domestic, medical, and didactic ordinances, the very genius of jobbing would here seem to have its peculiar abode. With an immense revenue, and resources, the poor of Dublin are obliged to pay a certain sum for admission into its wards; while its officers, male and female, lay and clerical, are paid the most extravagant salaries out of the funds of the establishment, and some of them supplied with apartments fitter for the residence of a duke, than the menials of a hospital. Its present medical department is filled by a master unknown in Dublin as an accoucheur, or anything else, except as the graduate, we believe, of one of the obscure Scotch universities, until raised to the situation by one of the grossest tricks of hospital election on record. Instead of being connected, as it should be, like that of Edinburgh, with the University and the College of Surgeons, as a necessary appendage to both these establishments, for the general instruction of their pupils at a moderate price, it has been totally delivered up into the hands of a succession of masters, who have farmed its revenues with the avarice of so many Jews, without making in return a single addition to the professional literature of their country. Its dissociation from the schools of physic and surgery, and its vast extent having monopolized, in some measure, those materials of instruction and profit scattered among a number of smaller establishments and private lecturers in other cities, have, no doubt, contributed to that defective cultivation of midwifery alluded to; but, in this discretionary power of raising the fees on admission, conferred on the masters of the establishment by its governors, lies the source of the evil which we have described. By this unlimited license for exaction, the situation of master has become one of the most lucrative medical situations in these countries, with the advantage of being a sinecure; for, exclusive of the patronage which the appointment secures, it is worth, by pupils, assistants, and domestic accommodations, about, we believe, two thousand a-year, for which, in reality, there are few didactic or practical duties performed. Our readers, acquainted with the expense of obstetric tuition in Great Britain, may doubt us, when they are informed that successive masters of the Dublin Lying-in Hospital, have coaxed up the admission fee, from time to time, to the round sum of about twenty-two guineas a season—a sum not more extravagantly beyond the value of attendance at any such institution, than beyond the capability of many students to comply with the demand, who, consequently, undertake the management of females in the interior of the country, without the necessary preparations of lectures and hospital practice, to the frequent risk of human life. One might really suppose, from considering the exorbitant charges to which the Irish student, in many stages of his education, is subjected, that his teachers look upon him as endued with the gift of Midas, and capable of transmuting whatever he touched into gold. The Irish Bacchus, or Silenus, however, not having the power of conferring the gift of transmutation on his devotees, it is not surprising that many of them should seek out teachers in other countries, who entertain more rational ideas of pupils' means, and of the value of instruction. Besides, viewing the far-famed beauties of the Clyde, and the "city of palaces," the difference between the fees of the Dublin and Edinburgh Lying-in Hospital, would very nearly support the Irish student during the term of his attendance at the latter institution; for, how much, gentle reader, do you think the fee to be in the Scotch capital?—just one pound five, for the half year; and, by taking Dr. Hamilton's ticket, at the same time, he is entitled to a diploma to practise midwifery from an university, and a professor of the practice of physic. Now, as it is expected that every general practitioner should be conversant with the principles and practice of midwifery, as a knowledge of both is required as a qualification for holding most civil and military medical situations; and, as there must be a great number of students educating in Dublin for these distinctions, it appears to us that a facility of attaining a competent knowledge of obstetrical science at a moderate expense, would be highly useful in the medical school of that city. With regard to any attempt to secure so desirable an object, by reasoning against the present absurd and noxious regulations of the Lying-in Hospitals, we beg leave at once to assure our readers, that we have not occupied them all this time with the design of concluding by the proposal of any such chimerical plan; for, we are quite convinced, that any such endeavour would be perfectly hopeless, the power of argument being, unfortunately, in too many instances, no match for uncontrolled selfishness and privileged exaction. There is, however, one most effectual method of bringing monopolists to a sense of their duties, by opening an opposition market, by appealing to their purses instead of their conscience; and this method, we conceive, to be susceptible of the most successful application in the case of Dr. Collins and the school of Dublin. The plan which we propose, consists simply in introducing the system of private lecturing, and of supplying pupils with cases among the poor into Dublin, as practised in this metropolis and in Edinburgh. The complete success which has attended the system in both these cities, is a sufficient testimony of its practicability; particularly in the latter, where the university professor, notwithstanding his celebrity and the assistance of a Lying-in Hospital, was induced to appeal to the Town Council to have his lectures made an indispensable part of the curriculum, as a protection against the opposition of private teachers. We know, for certain, that many pupils in Edinburgh prefer Dr. Thatcher's lectures to those delivered in the University; the indefatigable industry and attention of that private teacher, supplying them with more cases than they can really attend. The patients themselves are so favourable to this system of attendance, that they prefer it even to the Lying-in Hospital. Nor is this preference of the patients and pupils at all surprising; for there are few matrons, whom indigence has not entirely deprived of a choice, would not rather be attended in their own apartment, than exposed in a public hospital; and, there are as few students, we presume, who are not convinced, that the exclusive charge of cases in private, with the assistance of an able master, if required, is not more improving, than the practice of a crowded institution. We can, from actual observation, therefore, assert, that the method has proved profitable to the teacher, instructive to the pupil, and satisfactory to patients; nor can we see why it should not succeed in Dublin as well as in other places and thus add a new and important feature to its school of medicine and surgery.

MEDALS TO MERITORIOUS STUDENTS.

The custom of distributing prizes or rewards to the most intelligent students, is, we are glad to see, now coming into general use. It is a practice which, in our estimation, is calculated to call forth a noble spirit of emulation and generous rivalry amongst the medical pupils, and, consequently, has our warmest approbation.

On Thursday se'nnight, Dr. Hopkins's prize, a splendid gold medal, was presented in the Webb-street Theatre, to Mr. Robert

Cordin, being the successful candidate for the best essay on the "Nature and Treatment of Protracted Labour."

On the following Saturday, the silver medal was given to Mr. W. Bloxam for the second best essay on the same subject. The prizes were not adjudged until after the parties had undergone a rigorous public examination, in which they were called upon to defend every point of their theses, thus affording a further guarantee of their competency. The gold medal is of considerable value, and is a beautiful specimen of art: on one side is a device both classical and apposite,—Juno, the reputed patroness of child-birth, is seen with her peacocks watching over a female who is reclining upon a couch, having apparently been recently delivered. A female attendant is kneeling and holding in her arms a new-born infant. On the reverse of the medal is a Latin inscription, expressive of the object for which the medal was given. In confirmation of the beneficial results which we have said are likely to arise from this public mode of rewarding students, we may here mention the fact, that at St. Thomas's Hospital, where Mr. Green has offered a medal for the best set of clinical reports, a spirit of observation and inquiry has been manifested amongst many of the surgical students, which it is truly gratifying to witness. To adopt a homely phrase,—every man is put upon his mettle.

MANUSCRIPTS OF THE CELEBRATED LOCKE.

That numerous unpublished manuscripts of Locke have come into the possession of Dr. Forster, has already been noticed in these pages. Some of these manuscripts being familiar letters to Mr. Turly of Rotterdam, and other celebrated persons of his time, are at length about to be published, and will probably issue from the press of Messrs. Nicholls, the well-known publishers of so many antiquarian curiosities of literature; we state that *some*, and we fear only *a few* of the MSS. of Locke, will be published. A careful perusal of Locke's familiar correspondence has convinced the author of the forthcoming volume of the propriety of suppressing a large portion of them; Locke shows himself therein to have had the most sovereign contempt for certain religious doctrines and observances, which orthodox people still hold in the highest veneration. He was a physician and physiologist, a man of liberal mind, and warm and compassionate feelings.

Dr. Forster thinks, that, had Locke been brought up at Maynooth, in the present enlightened age, instead of Oxford, in an age of bigotry, he would never have cast the most casual slur on the institutions of orthodox christianity. His benevolent mind looked to the result rather than to the springs of popular subjects of belief; and, if his judgment as a logician, critic and metaphysician, had ever been warped by feeling, it was on the side of humanity, as in the present instance, in which, proceeding hastily to the judgment of the tree by its fruits, he filled his correspondence with sneers, evidently prompted by feeling, against institutions and doctrines in which he saw, or thought he saw, cruelty and oppression.

We have received a letter from a student attending the Charitable Infirmary, Jervis Street, Dublin, who has the candour to subscribe himself "*Miser Indoctusque Discipulus,*" complaining of gross inattention and neglect of duty on the part of the medical officers and other functionaries connected with that institution. Our Correspondent rightly conjectures, that the length of his communication precludes the possibility of its insertion in this Journal; but, if he can authenticate the statement respecting an individual named in his letter, and confine his "bill of indictment," as he terms it, within reasonable limits, our pages shall be open to him. To the general charges of irregular attendance on the part of surgeons and nurses, and of the negligence and want of cleanliness which characterise the management of the Charitable Infirmary, this notice will as effectually draw public attention, as the insertion of our Correspondent's elaborate communication.

SUCCESSFUL CASE OF TRANSFUSION.

A SUCCESSFUL case occurred a few days ago in the person of Elizabeth Evans, wife of David Evans, of Baker-street, Shrewsbury. In consequence of a miscarriage, the poor woman had, from a violent hemorrhage, become quite exhausted, and nature was on the point of sinking; her pulse had been imperceptible for about an hour and a half; her extremities cold, and perspiration clammy; added to which symptoms, her stomach was so irritable as to reject every description of nourishment; every cordial and stimulant that was offered. At this critical moment, it occurred to Mr. W. J. Clement, the surgical gentleman called in, that the only chance was to attempt the operation above alluded to, and having procured a healthy stout man, who was willing to aid the operation, by allowing the requisite quantity of blood to be taken from him, Mr. Clement opened a vein in each arm, and by means of Weiss's patent syringe and tubes, injected about fifteen ounces of blood with the most complete success.—In the course of a few hours she was perceptibly better, and has continued improving up to the present period, giving every assurance of ultimate recovery. In noticing this case, we cannot too strongly recommend the propriety of every professional gentleman being provided with the requisite apparatus, as there can be no doubt that it may be the means of saving the lives of many valuable members of society. The syringe and tube should be kept immersed in water during the transfusion.

Formulary for the Preparation and Employment of several New Remedies, namely, Resin of Nux Vomica, Strychnine, Morphine, Hydrocyanic Acid, preparations of Cinchona, Emetine, Iodine, Piperine, Chlorurets of Lime and Soda, Salts of Gold, and Platina, Phosphorus, Digitaline, &c. Translated from the Sixth Edition of the Formulaire of M. MAGENDIE; *with an Appendix.* By JOSEPH HOULTON, F.L.S., Member of the Royal College of Surgeons, London; Associate of the Medico-Botanical Society. London, T. and G. Underwood; pp. 196. 1828.

THE science of chemistry, in the discovery of the active principles of various articles of the Materia Medica, undoubtedly has conferred an incalculable benefit on the healing art; for it must be admitted, that the intimate nature of disease being first understood, the object of next importance is the precise adaptation of remedies, which shall be certain in their effects. It would, indeed, be chimerical to expect a perfect uniformity of result; peculiarities of constitution, which we term idiosyncrasies, will, in some instances, defeat our intentions; yet, by having thus obtained the elements of medicines, separated from substances calculated to mask their action, we arrive at a degree of certainty in the administration of remedies, calculated in some measure to wipe away the stain of "conjecture" which has been applied to our art since the days of Celsus.

The book before us is, as its title expresses, a formulary for the preparation and employment of the new remedies, by Magendie. In France it has run through five editions, two of which have appeared in an English dress, the one by the late Mr. C. Haden, and the other by Dr. R. Dunglison. The author, in his preface to the present edition, states, that "it differs from its predecessors by a great nnmber of additions and changes."

Resin of Nux Vomica.—Magendie asserts, that an entire family of plants, (the strychniamari,) have the property of strongly exciting the spinal marrow, without affecting, except indirectly, the cerebral functions, and hence he was led to employ the nux vomica in various cases of paralysis. The extract, prepared by digesting the nux in alcohol at 40°, and subsequent evaporation, is the form used by Magendie, and he observes that it may be given in all diseases of debility, whether local or general, and in palsies of every description. Its effect upon the system is, to produce tetanic convulsions in the parts affected; and, in animals, he has found by experiment that a division of the spinal marrow, and even complete decollation do not interfere with the action of this substance. The dose of the extract is from four to six grains per diem, but in some cases from 24 to 30 grains are required; it is best given in pills containing one grain, commencing with one or two daily. A tincture is also employed, which is formed by digesting three grains of the extract in an ounce of alcohol.

Strychnine and Brucine.—The nux vomica, the bean of St. Ignatius, the upas, and some other vegetables, derive their intense power from two alkalis, called strychnine and brucine. The former is most readily procured, and with the greatest purity, from the upas; its action upon the animal economy is similar to that of the resin of the nux vomica, being of course much more powerful. *One-eighth of a grain will kill a dog.* The action of brucine is analogous to the strychnine, but it is less intense, standing, according to M. Andral, in the relation of 6 to 1.*

Morphine.—This is the narcotic principle of opium; it is a vegetable alkali, obtained by a process somewhat tedious, and on account of its being much less soluble than its salts, the latter are preferred. The acetate and the sulphate of morphine are used by Magendie; he has relinquished the muriate, finding it to be less active. These salts may be given in pills or draughts, in the dose of from a quarter of a grain, to two or three grains in twenty-four hours.

There is a peculiar principle in opium, long since discovered by Derosnes, and which is called *narcotine;* it produces a degree of stupor, which, according to Magendie, differs from sleep. By acting upon the watery extract of opium, with sulphuric æther, the narcotine is separated, and the residuary opium is said to be better adapted for procuring tranquil sleep.

Emetine.—The power of the various species of ipecacuanha, resides in an alkaline principle called emetine, which is soluble in æther and alcohol, but not in water. Its action is similar to that of the substance whence it is obtained.

Alkalis obtained from Cinchona Bark.—M. Gornes, of Lisbon, is said to be the first person who recognised a principle in bark, under the name of cinchonine; but M. M. Pelletier and Caventon, were the discoverers of its alkaline character. In pursuing their first experiments upon the grey bark (condaminea), they obtained *cinchonine.* The yellow bark (cordifolia) furnished an alkali, somewhat of a different character, which they denominated *quinine.* The red bark (oblongifolia) was found to contain a mixture of the two alkalis. Subsequent analysis, however, proved that the two substances do simultaneously exist in the different species of bark; but that, in the grey kind, the portion of cinchonine is much greater than that of the quinine—the reverse being the case in the yellow bark.

Cinchonine is white and crystallizable, its form being a rhomboidal prism: it has but little taste, and is nearly insoluble in water: dissolved with an acid, it has a very bitter taste. The sulphate and acetate of cinchonine are used in medicine.

Quinine is white, and crystallizes in the form of "silky tufts:" it is highly soluble in æther, whilst cinchonine is but slightly so, and hence this liquid may be employed to separate the two alkalies.

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* The fruit of the plant *feuillea cordifolia,* (a native of Jamaica,) is said to be an antidote to these and other vegetable poisons.

Sulphate of Quinine.—The following observations are made in reference to the mode of preparing this invaluable medicine.

> "A ready and cheap mode of obtaining this salt direct, has been made known by M. Henry, jun. He treats the bark several times, (exposed to heat,) with water sharpened by sulphuric acid (in the proportion of 6 or 8 *grammes* to the *kilo-gramme* of distilled water;) filters through close linen, blanches the liquids by means of quick-lime, and washes the precipitate, in order to get rid of the excess of lime. This being well drained, is digested repeatedly with alcohol at 36°. The spirituous tinctures are collected in an alembic, and placed in a water-bath. The alcohol is now obtained by distillation, and will answer for future operations: and the residue consists of a brown, viscid, bitter substance, which contains a considerable proportion of impure quinine. This mass is exposed to heat, with water impregnated with sulphuric acid, is passed through filtering paper, and the liquid, when cool, yields crystals of sulphate of quinine, which a second solution and crystallization furnish perfectly pure. The same method, but without the same success, has been tried for the extraction of sulphate of cinchonine from the grey bark."

The sulphate of quinine, thus obtained, is in the form of white silky crystals, soluble in water, but still more so in boiling water slightly acidulated, At a temperature of 100° it becomes luminous;—it is considered by M. Baup as a neutral salt.

The value of the sulphate of quinine is now so generally established, that it is scarcely necessary here to dwell upon its virtues. In speaking of the doses of this medicine, Magendie refers to a paper of Dr. Elliotson, in the Medico-Chirurgical Transactions, and he says, that pure quinine was given by Dr. Elliotson, to the extent of five grains every six hours; and, in some cases, ten grains at similar intervals. The translator states in a note, that Magendie has misquoted Dr. Elliotson, who has not given ten grains every six hours, but has administered five grains every four hours. M. Magendie has never found it necessary, for curative purposes, to give more than ten grains in the twenty-four hours, and he further remarks, that, under larger doses, the patient sometimes experienced strong cerebral excitement. Two grains in the twenty-four hours, he says, will stop a tertian, quartan, or quotidian fever.

Veratrine.—For a knowledge of this substance, we are indebted to M. M. Pelletier and Caventon: it was found in the seeds of the veratrum sabadilla, or cevadilla, in the white hellebore and meadow-saffron. Veratrine is very slightly soluble in cold water, readily dissolved in æther, and also in alcohol.

Action on Animals. — Experiments were made with the acetate of veratrine upon dogs; it was found, that a small quantity introduced into the nostrils, induced violent sneezing; and one or two grains put in the fauces, caused profuse ptyalism.

> "If the same quantity be thrown into any part of the alimentary canal, and the abdomen be opened for the purpose of observing the effects, the intestine violently contracts, then becomes relaxed, then again contracts, and so on for some time. The portion of the mucous membrane, in contact with the veratrine, inflames, the irritation spreads, and both vomiting and alvine dejections are excited. Administered to greater extent, the circulation and respiration are much accelerated, tetanus quickly supervenes, and terminates in death. The effects are still more rapid when the veratrine is injected into the pleura or the tunica vaginalis."

M. Magendie has given veratrine to the amount of two grains in twenty-four hours, without excessive purging, in the case of an old man who had suffered an apoplectic attack. With respect to the cases proper for the exhibition of veratrine, Magendie says,

> "It ought to take the place of those pharmaceutical preparations whose basis is either colchicum or hellebore; they would thereby be rendered more powerful therapeutic agents, and at once more convenient and certain. By this change the tincture of colchicum, the eau medicinale, and some

others, would lose that uncertain character which gives just cause of dissatisfaction with them."

Prussic Acid.—The properties of this medicine are so well known, that we need not enter into the consideration of them: it certainly is a valuable remedy in many cases of dyspepsia; in pulmonic affections we have no confidence in it, and we speak from considerable experience. The different results obtained from the employment of prussic acid, owing to the readiness with which it is decomposed, induced the French chemists to substitute a solution of cyanuret of potassium, the action on the animal system being the same. It has not yet, however, been employed in the human subject.

Solanine is obtained from the berries of the solanum nigrum: introduced into the stomach of a dog or cat, it produces violent vomiting, followed by drowsiness, which, lasts for hours.

Delphine.—An alkali to which this name is given, was discovered in the seeds of the stavesacre, existing in combination with malic acid: it has not yet been tried as a medicine.

Gentianine is found to be the active principle of the gentian root; and *lupuline*, of the humulus lupulus.

Oil of Croton.—This drastic purgative is extracted from the seeds of the croton tiglium, a shrub of the family euphorbiæ, growing in the East Indies. It is now occasionally used in this country. The *oil of euphorbia* acts in a similar manner.

Piperine is obtained from black pepper, and has lately been employed in Italy, in cases of intermittent fever, with much success.

Urea, obtained pure, by a chemical process, has been given by M. Segalas, in a case of diabetes, but without benefit.

The other new remedies mentioned, are, *lactucarium*, (the white viscid juice of the garden lettuce), the salts of gold and of platina, the bark of the punica granatum, chlorurets of lime and soda, phosphorus and digitaline. There is nothing particularly worthy of remark in the observations upon these substances.

Mr. Houlton has thought proper to subjoin an appendix to the formulary, but we find nothing therein which might not have been well condensed into the form of notes, and placed under each article to which they refer.

It is an interesting and useful volume.

WESTMINSTER MEDICAL SOCIETY

Saturday, January 26, 1823.

Dr. Somerville, in the Chair.

The subject of this evening's discussion was, "Delirium Tremens," on which a paper was read by Mr. Hunt. There was nothing novel advanced in respect to the symptoms, pathology, and treatment of this affection. It was the general opinion that the disease is one of exhaustion or debility, and that it is curable by stimuli. Dr. Ayre, whose experience in this affection appears to have been very considerable, observed, that "delirium tremens" is not an abstract disease, but it is a peculiar condition of the system which may occur in the progress of many diseases. The only points at issue in the Society were these:—first, is blood-letting ever admissible? and, secondly, with respect to the use of opium, whether it should be given in large doses, as a *sedative*, or in smaller doses, as a *stimulant*? It was contended, in opposition to the practice of blood-letting, that delirium tremens essentially consists in a state of exhaustion, and that the cases where symptoms of cerebral inflammation are said to have been present, were not instances of "delirium tremens." As regards the use of opium, in large or small doses, no decided opinion was obtained.

Previously to the Society parting, the Chairman, addressing the members, said, that a Gentleman wished to put a question to the Society.

Mr. Duncan then came forward, and remarked, that as he had understood the case of temporal aneurism, on which Mr. Wardrop operated, had been examined, after death, at the Middlesex Hospital,* he wished to learn (as various rumours were afloat) what was the condition of the parts, in reference to the operation.

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* Vide page 656.

Dr. Johnstone said, that the Chairman, Dr. Somerville, had seen and examined the parts, and therefore was competent to answer Mr. Duncan's inquiries.

Dr. Somerville then enumerated the appearances, and amongst other things remarked, that the internal jugular vein was obliterated to some extent, at the part corresponding to where the carotid was tied; the latter vessel was completely closed.

Mr. Lambert wished to know, whether the internal jugular vein had been included in the ligature?

This question called up Mr. Arnott, who was evidently much agitated. He said, that he was present at the dissection, and certainly said, that it was his opinion the jugular vein had been wounded in the operation. He had never asserted that it was tied with the artery, for he did not believe this to be practicable, without also including the nervus vagus.

Mr. Duncan was going on to say, that Mr. Mayo had stated, the vein was tied, and there was every appearance of a "war," at least of words, when the Chairman dissolved the meeting.

LONDON MEDICAL SOCIETY.

Monday, January 28, 1828.

Dr. Haslam, President, in the Chair.

The particulars of a case of ulceration of the appendix cœci, with gangrenous inflammation of the cellular tissue behind the peritoneum, were narrated to the society by Dr. Burne. As this case was fully and accurately reported in our last week's Journal; it will only be necessary here briefly to recapitulate.

The patient, a young woman, was in the Hospital eight days, under the care of Dr. Cholmely and Mr. Key: the most prominent feature in this case was violent pain and exquisite tenderness in the course of the cœcum, and ascending portion of the colon. On examination after death, a cyst, formed by adhesions of the omentum, was found on the right side of the abdomen, containing a quantity of dark coloured fluid; the appendix cœci was destroyed to a considerable extent, and the remaining portion opened into this cavity. The cellular tissue behind the peritoneum on the right side was engorged with dark sanious fluid, being, in fact, in a gangrenous condition, and the substance of the iliacus and psoas was in part destroyed. There was no communication to be traced between the fluid, within the bag of the peritoneum, and that lying immediately behind it.

Dr. Burne attributed the appearances to ulceration from some unknown cause having taken place in the appendix cœci; that there was a consequent effusion of fœcal matter into the abdomen, which gave rise to a natural attempt at cure by the setting up of an inflammatory process so as to form a cyst, and thus to limit the extent of extravasation. The disease formed behind the peritoneum, he explained, as the result of inflammation from contiguity.

Mr. Callaway, who had seen the patient before her admission into the Hospital, argued that the symptoms manifested in the commencement of the disease were indicative of some extraneous body in the appendix, and he related several cases, in which substances were found on post-mortem examination in the appendix.

Several questions were proposed to Dr. Burne, respecting the case, and Dr. Shearman made some general remarks on inflammation being sometimes a remedial process, and therefore not invariably to be checked by depletion.

In the relation of the case by Dr. Burne, we remarked one discrepancy from the report given in this Journal. Dr. Burne stated that the fluid, effused into the bag of the peritoneum, *had a fæcal smell*, whereas the reverse was stated in The Lancet; upon the subject of the fluid having a stercoraceous odour, there was a difference of opinion at the time of inspecting the body; but one thing is certain, that no extraneous substance, other than the fluid, was detected.

We have received the following Letter from Mr. Samuel Cooper, to which we readily give insertion, although we cannot help thinking, that his able exposure of the "Old Hack of a Journalist" is a proceeding somewhat analogous to that of "breaking a butterfly upon a wheel." Roderick Macleod, the editor of the Weekly Excrescence, is still the same Roderick Macleod who wearied and disgusted his readers as the editor of the Monthly Fungus. He seems to have reckoned upon catching a few unsuspecting purchasers, by concealing his name, and publishing his trash under false colours; but how could he remain concealed, when imbecility, ignorance, and malignity, marked the Weekly Excrescence for his own?

To the Editor of THE LANCET.

SIR,—When an old hack of a journalist, whose dull matter the world has long been tired of, submits to a kind of transfiguration with the view of exciting a little more notice, and advertises himself as "dependent on no party, and fearing none;" and as aiming, *O hominis impudentem audaciam*! at the "utmost degree of judgment, knowledge, and good feeling," one might be led to expect, at least for the first few weeks of his metamorphosed existence, a decent semblance of impartiality and fairness. When he thus publicly declares his fear of no party, and his connexion with none, one might also be induced to calculate upon his courageously inserting in his work, every humble attempt to repel charges deliberately preferred by himself against any poor member of the profession, of whom he has tried to make a grillade. The party censured by him had a right to expect this courtesy, not only from his boasting professions of impartiality and fearlessness, but from his own "ideal model" of what should be his aim, namely, the "utmost degree of judgment, knowledge, and good feeling,"—the splendid, but only promised, attributes of his future productions.

It is sometimes difficult to say, positively, whether an author be in earnest or not; whether his meaning be solemn, or only a piece of humour. The foregoing pretensions would puzzle the most acute expositor of mysteries; and all that I can say upon the question is, "*Jocone an serio illæc dicat, nescio.*" Presuming, however, that it is the real design of the above scribbler to keep the pattern of excellence in view, I cannot refrain from expressing serious apprehensions respecting the fate of his intended essay to become a perfect copy of it. The hebetude of his former effusions is still in my recollection; and "the grey goose-quill," which he says he has long used, is now so worn that it will not admit of being mended, being only fit to be thrown into the fire, by which he is continually trying to "broil" or "boil" certain individuals, perhaps as a proof of his attachment to no party. Unskilful cooks, however, besides making their employers sick with heavy nauseous messes, sometimes either turn the saucepans over and scald themselves, or burn their own fingers, by being too venturesome with the gridiron. Some disaster of this kind is not unlikely, I think, to befall the head cook of the London Medical Gazette, unless his old customers remain content with what they formerly used to swallow, plain milk and water, quite cold.

This jealous personage, notwithstanding his being influenced "by the utmost degree of judgment, knowledge, and good feeling," has lately exhibited considerable soreness, at perceiving that some letters, which he wished to have for the nourishment of his own stunted, feeble bantling, had found their way into THE LANCET. Hence his last fulminations, both against me and Mr. Lawrence; but, he is also particularly enraged against me for other reasons: one is, that I did not actually annihilate my old friend, by directing my heavy metal with more precision in the late action; another is, that I would not adopt the notions of some members of the profession, who make it a rule never to read THE LANCET, or send communications to it. With respect to the first of these reasons it may be questioned, whether it was necessary to employ my great guns at all, because, as far as I can learn, the practice of early and very extensive incisions in erysipelas, never has had any advocates, not even at the St. Bartholomew head-quarters, with the exception of Mr. Lawrence himself. Perhaps, therefore, I might rightly be blamed for wasting ammunition; but, of making some tolerable hits by mere weight of metal, with my cannon pointed in the wrong direction, no critics would accuse me, who are free from the arrogance of aspiring to the "utmost degree of judgment." With regard to the second reason for the hostility shown to me by this broiling editor, namely, that it did not appear to me unbecoming in any man to send communications to THE LANCET, the journal which sadly interferes with the receipts of his exchequer, I presume that it is not my duty to examine things only with other people's glasses. While some surgeons disdain, or scorn, to read THE LANCET, I am always very glad to read it, because I generally derive much useful information from its pages. It has brought about the removal of numerous abuses; it has made hospital surgeons more attentive to their duty; and it has served the cause of many poor, neglected, or badly-treated patients. Had it been free from one fault, namely, personalities, its success would have been still greater, its enemies fewer, and its operation in promoting useful reforms quicker and better supported. Medical, like political reform, however, is a topic on which I find few persons think exactly alike. As for myself, I am always ready to hear both sides of the question, and it was this motive which prompted me to wish for the establishment of two weekly medical journals of opposite principles, so that, on every disputed topic, the arguments *pro* and *con* might be laid before the public. The Editor of the London Medical Gazette, I fear, must undergo another transformation, ere he will deserve the appellation of being your rival.

Now for this hero's fearlessness and "principles of good faith." He first makes a foolish complaint about my not being consistent, because, after mentioning the fact of certain individuals having determined not to read or write any thing in THE LANCET, I declared myself not to be one of the number; and he insinuates, that I backed out of the business very awkwardly, and with a very subdued tone. Now, Sir, this charge he would not have presumed to bring forward at all, had his logical powers had any vigour in them at the time when he was using his old "grey goose-quill" on this subject, because the accusation involves him in the absurdity of not seeing, that my having then already written several letters in THE LANCET, furnished a perfect refutation of his attempted calumny. The very letter he was criticising should have dispelled his blindness. However, as he did venture to make the accusation, it appeared to me proper to address a letter to him in defence of myself, requesting him to return it to me if he had not room for it in his Gazette. What was his behaviour on this occasion? Instead of letting me have the letter again, or of printing it without alteration, he detained it nearly a fortnight; and then, after printing a few unconnected passages from it, offered a silly comment on what he had not the courage or candour fairly to submit to the judgment of the profession. Here, in his capacity of author, he shows another feather, and one of a different colour from that of the "grey goose-quill," now worn to the very stump.

Confidently believing that this literary shuffling will be duly appreciated by your readers, without any further strictures on it, I shall bid adieu for the present to the Editor of the London Medical Gazette, and hope that he may soon undergo some new metamorphosis, by which he shall convince his customers, that he is likely some day or another to be actuated by the "utmost degree of judgment, knowledge, and good feeling." Indeed, such are his poor qualifications for the task he has undertaken, that I would not exchange six pages of my "humble, useful compilations," as he terms them, for six volumes of his own original trash. Even when he ventured on the whimsical experiment of putting my old friend in "hot water," (See Gazette, No. 3, p. 72,) I could not, for some time after the perusal of the inspired lines, get rid of the idea, that "milk and water" was certainly the fluid intended for use. I am, Sir,

Your obedient humble servant,

S. COOPER.

71, Great Russell-street, Bloomsbury,
January 28th, 1828.

ON THE FOOT OF THE HORSE.

To the Editor of THE LANCET.

SIR,—As you were so kind as to allow me to trespass on your space in one or two former instances, may I request the insertion of the following hasty remarks, in reference to an article on the true form of the hoof of the horse, in your publication of last Saturday. This, I think, you will do the more readily, when I assure you that my *only* object is to elicit truth.

Immediately after the two figures, which at first sight would appear to carry conviction with them, you say, "the fibres of the hoof, it may be observed, are running parallel from the coronet to the base:"—are they running parallel?—for this I take to be the point at issue.

The most familiar illustration of a cone is the common sugar-loaf, but sugar loaves may differ much in appearance, and still remain cones; for example, suppose the base of a sugar-loaf to be nine inches in diameter, but instead of the usual height let it be five or six feet; and suppose we cut out a truncated portion of it, at that part where the circumference is the same as that of a hoof, then looking at it without reference to the other portions of the cone, I think it would require a good deal of mathematical accumen to determine, whether it was a portion of a cone or of a cylinder; but, if we could persuade it to grow in length or height it would soon determine the question.

Now, Sir, you say most properly, "there can be no parallel lines in a cone;" and the definition of parallel lines that I find in my old T. C. D. Euclid, which is the only one I have by me, is—"rectæ lineæ parallelæ sunt quæ in eodem plano existentes, in infinitum productæ ad neutram partem concurrunt;"—of course neither will they diverge. Now how stands the case as to the horse's hoof? We nail on it an "*unyielding ring of iron*," somewhat wider all round, and extending further backwards than the base of the hoof; but at the end of six or eight weeks, when it has grown in length a quarter or half an inch, then the base of the hoof will exceed the width of the shoe all round, *and also at the heels*, therefore its fibres must have diverged; but, if it was a portion of a cylinder, and that it grew a mile in length, its fibres never would diverge at the base, or converge at the apex; from which, I conceive it follows, that the hoof is not a portion of a cylinder.

That the fibres of the hoof do converge at its apex, if allowed to stand on litter to remain at rest, *even without shoes*, only requires unprejudiced eyes and moderate experience to be convinced of; this will be much more evident if the frog does not receive pressure. Quære: is it not at the apex of the hoof that most generally, if not always, contraction commences? If such is the case, what are the advantages of an expansive defence, even supposing such a defence applicable to general purposes?

Allow me, Sir, with reference to Mr. Clark's *discoveries*, to quote a passage from what I consider the first veterinary authority in Europe. Speaking of Mr. Clark's work, Girard says, in the preface to his *Anatomie Vétérinaire*, page 38:—"M. Clark insiste fort peu sur les autres parties constituantes du pied, et ses conclusions, d'ailleurs fort belles et tres judicieuses, ont le grave inconvenient de ne reposer que sur un seul fait."

I am, Sir, with great respect,
Your very obedient servant,
J. Irwin Ganly, Vet. Sur.
15th January, 1828.

We cannot forbear reminding our Correspondent, that there is one circumstance which affects the value of M. Girard's criticism, namely, that the observation above quoted, is not true. Mr. Bracy Clark's conclusions are *not* founded upon a solitary fact.

ST. BARTHOLOMEW'S HOSPITAL.

CATARACT, CONTRACTED AND ADHERENT PUPIL, PROTRUSION OF THE LENS AND IRIS AGAINST THE CORNEA, AND STAPHYLOMA SCLEROTICÆ,

Consequent on Acute Internal Ophthalmia (Ophthalmitis interna Idiopathica of Beer).

Robert Buck, ætat. 30, a journeyman baker, and a robust healthy man, was admitted into this Hospital on the 21st Dec., under the care of Mr. Lawrence. In the autumn, he found a mist come over the left eye, and at the same time, saw before it imaginary objects (muscæ volitantes); in about a month the sight was lost, and he then began to experience severe pain at the eye and head. He was most judiciously treated, as far as he could conform to the measures prescribed, by Mr. T. Warner, of Cirencester. That gentleman first saw him early in September, when the disease had existed three weeks, its ravages having been hastened, not merely by neglect, but by the use of various popular remedies. His master had recently died, so that the active management of the business, including the making and carrying out the bread, heating and drawing the oven, &c., entirely devolved on him. The acute pain in the globe, extending over the same side of the head, the immobility and altered appearance of the iris, the cloudiness of the pupil, the dense redness of the sclerotica, and the nearly-destroyed vision, were justly considered by Mr. Warner to indicate the necessity of the most active treatment. He accordingly bled him to fainting, purged him freely, and then prescribed calomel and opium, directing that he should remain at home quietly, and make no use of the affected organ. The latter injunctions were entirely disregarded by the patient, who continued his ordinary avocations, which were admirably calculated to excite and maintain ophthalmic inflammation. He was bled five times in the first eight days, and kept under the influence of mercury; but he did not remain at home until he had become actually incapable of exertion in his business. His head was then shaved; leeches, blisters, and a seton were employed, and the mercurial treatment was continued. These means afforded only a temporary alleviation of his sufferings, which were very severe, the pain in the eye-ball and head entirely depriving him of rest. He now began to experience pain in the right eye, and to find the sight weak. As vision was entirely destroyed in the left eye, and a neighbouring practitioner, who had observed the opacity of the lens, had spoken of the operation for cataract, the patient came to London.

At this time (21st of Dec.) the left eye was totally insensible to light. The lens and capsule exhibited a thin bluish white opacity; these parts, with the iris, were in close contact with the cornea, completely filling up the anterior chamber. The pupil adhered in its whole circle, the adhesion forming a narrow black margin to the pupil, as if the iris had been partially withdrawn, after the unnatural connexion had occurred, so as to leave the pigment upon the capsule. There was considerable external redness, and the sclerotica formed a prominence as large as a horse-bean, towards the upper and outer part of the globe: it caused a visible projection of the upper lid. He experienced occasionally severe pain in the eye and in the head, these being worse at night. There was slight external redness of the right eye, with pain in the ball, and some dimness. He had a frequent and full pulse, furred tongue, and costive bowels.

Mr. Lawrence pointed out this case to the attention of the pupils, as an important pathological specimen, showing the changes which inflammation is capable of producing in the structures of the eye, and the importance of adopting active measures in the early period of such affections. The inflammation began in the retina, and was confined to that tunic for three weeks; after which, it extended to other parts, and finally, involved both the external and internal structures of the organ. Active depletion, and the free use of mercury, would have restored vision, and prevented the subsequent changes of structure, had they been resorted to in the first or second, possibly even in the third, week. Instead of this, continued exposure to the original exciting causes brought on inflammation of so violent a character, that the most powerful measures were unavailing; the lens and capsule were rendered opaque by interstitial deposition, the pupil was fixed by the effusion of lymph, the retina lost its sensibility to light, and such increase of bulk took place in the posterior and inner part of the globe, either from vascular congestion or effusion, as to push forwards the lens and iris, and cause staphylomatous protrusion of the sclerotica. There could be no doubt that the retina was completely altered in structure, and thus rendered insensible by inflammation; consequently, that the patient would have lost vision with this eye, even had the lens and capsule remained transparent. The operation of cataract was therefore out of the question. But, even supposing the retina not to have been originally inflamed, as the symptoms shewed that it was, could we have expected it to retain its sensibility under the strong pressure that it must have experienced, when the lens and iris were driven forwards against the cornea, and the strong fibrous coat of the eye gave way, and formed a staphylomatous tumour?

Mr. Lawrence considered that the only indications of treatment at this time, were, to bring the inflamed eye into a quiet state, and thus to remove the painful symptoms under which the patient still suffered; and to prevent the development of disease in the right eye, in which symptoms of inflammatory disposition were already apparent. With these views, cupping was directed, and repeated four or five times; blue pill was given twice a day, with occasional aperients; he was placed on milk diet, kept quiet, and ordered not to use the eye. The uneasy sensations in the head disappeared, the tongue became clean, the right eye was no longer bloodshot or weak, but regained its strength, and the patient was discharged, by his own desire, on the 6th of January.

SRANGULATED HERNIA.—OPERATION BY MR. VINCENT.

On Thursday, Jan. 24th, Mr. Vincent operated on a case of hernia. The patient, a middle-aged man, had been subject to a rupture for twelve years, and had constantly worn a truss. On Monday, January 21, a sudden increase of the tumour took place, followed by pain, and the next day vomiting came on; he had taken aperient medicines, but the bowels had not been evacuated. When admitted into the Hospital, he was labouring under all the symptoms of strangulated hernia; the tumour was distinctly felt in the right groin, and could be traced upwards, into the abdomen. The finger could be passed a short distance above the internal ring, taking the course of the inguinal canal. The abdomen was swollen and tense, and he complained of a sense of lightness extending across its lower part; it was not very painful or tender on pressure, nor had he much pain in the tumour. He complained of flatulency, and vomited—bowels not open since Sunday; pulse frequent, but not hard. He was put in a warm bath, and the taxis applied, and aperient medicines administered. As these means were of no avail, Mr. Vincent performed the operation without delay. On laying open the sac, which contained a quantity of serum, a portion of small intestine, about two inches in length, was exposed: it was of a deep red colour, and, on withdrawing it gently, it was found at the seat of stricture, indented with a circular mark, as if it had been tightly bound round by a cord; its coats were thickened at this part, and its calibre lessened. The stricture, which was at the neck of the sac, was divided, and the gut easily replaced. The bowels were fully evacuated shortly after the operation; no symptoms of peritoneal inflammation have manifested themselves, and the patient is fast recovering.

ST. THOMAS'S HOSPITAL.

SMALL WOUND OF THE SCALP, FOLLOWED BY DIFFUSE INFLAMMATION, AND SUPPURATION OF THE CELLULAR TISSUE.—ERYSIPELAS OF THE SCALP.

The following is a well-marked instance of diffuse inflammation and suppuration taking place in the cellular tissue of the scalp, subsequent to a slight injury, constituting, in fact, what is called erysipelas of the scalp. The case well serves to exemplify Mr. Travers's mode of practice in such cases, he being, as it is well known, decidedly opposed to the plan of making incisions, which, if we mistake not, would have been considered by the advocates of this measure as especially applicable here.

Case.—T. Webb, ætat. 53, a stout muscular man, of temperate habits, was admitted into Jacob's Ward on the 11th of November, on account of injury to the head. Upon examination, there was found to be a wound of the scalp at the upper and back part of the head, of about an inch and a half in length; the pericranium was not apparently injured, and the wound was what may be termed a clean cut. The accident occurred from the man being struck with the pole of a coach whilst crossing the road. The hair being shaved from around the part, the edges of the wound were brought together by strips of adhesive plaster.

On the 13th, two days after admission, there was considerable tumefaction of the scalp to some extent around the wound, with some redness, and increase of heat generally: the parts were also tender on pressure. The pulse was quick and hard, the tongue furred, and skin hot; the bowels had been freely relieved on the 12th by a dose of house physic. The unfavourable symptoms came on in the evening of the 12th, with pain in the head, which continued unrelieved. A pound of blood was abstracted from the arm, twenty leeches ordered to be applied to the head, a small linseed meal poultice over the wound, and the spirit lotion to the head generally.

On the 15th the swelling of the scalp had much extended; the eye-lids were now closed from tumefaction. On making pressure with the fingers at different parts of the head, a crepitating or crackling sensation was readily felt, and there was slight œdema. The wound was in a healthy condition, freely suppurating. With respect to the constitutional symptoms, there was still much febrile excitement; the bowels were freely open. *Two grains of calomel*, with a *quarter of a grain of tartar emetic*, were prescribed to be taken every six hours, and an effervescing draught.

On the 17th there was less constitutional disturbance, but the swelling of the scalp was equally great, although with less heat. The calomel and tartar emetic were continued for one day, then omitted, and a draught directed every six hours, containing twenty minims of the solution of tartar emetic, and one drachm of the sulphate of magnesia. These medicines also were only continued for one day, and then three grains of quicksilver, with chalk, ordered to be taken three times a day, with a saline draught.

From the date of the former report to the 22d the patient was in nearly the same state: the febrile excitement had given way, and was succeeded by a state of debility. The swelling of the scalp was unabated, and the eye-lids remained closed; it seemed that the inflammation which had been diffused throughout the whole of the different tissues, forming the integuments of the head, had now terminated by effusion in the abundant cellular tissue *above* the occipito-frontalis. The cuticle of the face and forehead was desquamating generally, within the eye-lids, which remained closed from the infiltration into their cellular tissue, it was evident that suppuration had commenced; an opening was therefore made into each upper lid, and matter evacuated. A scruple of the extract of bark, and an ounce and half of the decoction, were ordered to be taken twice a day; half a pint of wine daily.

From the 22d to the 28th the patient gradually improved in his general health, becoming stronger, and his appetite returning. The swelling of the eye-lids had entirely ceased after the evacuation of the pus, but still the scalp continued in a state of tumefaction, and it became apparent that suppuration would ensue generally in the engorged cellular tissue. The wound of the scalp was healthy, and discharged copiously. A pint of porter daily was allowed on the 28th.

On the 31st the existence of matter beneath different parts of the scalp was clearly indicated; there was a free discharge, much increased upon pressure, from the original wound, but the matter was making its way on the left temple down to the zygoma. A free incision was made at this part, and also on the forehead, and a considerable quantity of pus, mingled with shreds of dead cellular membrane, was evacuated. The patient expressed himself much relieved after the issue of the matter;—he had previously felt a heavy weight on the head.

On the 3d of December another opening was made, and two or three ounces of pus evacuated: the different openings continued to discharge freely for several days, but on the 12th two of the orifices were closed. The remaining one was open a few days longer, but eventually closed; the patient apparently got quite well, and was dismissed from the hospital; soon after, however, he again applied for admission, and we shall give a further account of him on a future occasion.

TO CORRESPONDENTS.

Communications have been received from Mr. Hillyard—Mr. Lloyd—Mr. Herbert—Dr. Forster—Dr. Rucco—X.—T. M.—Mr. R. Martin—Mr. T. H. Smith—A Bartholomew Pupil—Mr. Whittaker—A Friend—Mr. W. H. Merry—Mr. Field of Rotherhithe—Spectator—Azoygas—Justus—A Medical Benedict—A Friend to Justice—Dr. Simpson—T. A.—Dr. Epps—Eques—Dr. Collins—Dr. Hare—Mr. Jones—B. B.—A Country Reader—Veritas—Iorwerth—Johannes Gracchus—F.—Mr. Huntley—G. U. N.—Londinensis—Mr. Officer—A Pupil—and Mr. Jessop.

We have received the "Northern Whig" and "Belfast News Letter."

Will "C. W.," "A Medical Student," "R. M.," and "Castigator," favour us with their addresses.

"Juvenis" had better write privately, and subscribe his real name. His questions are answered, generally, in the affirmative.

Mr. Paxton's communication shall appear next week.

"A Pupil of Guy's" complains, that he has attended an entire course of Dr. Blundell's Lectures on Midwifery, without having been furnished with a case of labour. He should apply to the lecturer; the omission has probably arisen from accident.

"W. G." may apply at St. Bartholomew's, Guy's, Hospital of Surgery, or at The Lancet Office.

The paper of "Medicus" is under consideration.

We are obliged to "Argus Edinensis," but we have not space for the "series" to which he alludes.

Other Correspondents must stand over.

LITERARY NOTICES.

Dr. Forster, of Boreham, in Essex, is making researches into the causes of the liability of that part of Essex to intermittent fever, with the best mode of employing the quinine as a remedy. He will publish, in a short time, an enlarged edition of his Researches into Epidemical, Endemical, and Periodical Diseases.

Beullaies Memoir on Mutual Instruction, applied to the Study of the Elementary Principles of Medicine, translated into English, &c. &c.

In the press, and shortly will be published, An Essay on the Application of Mathematical Analysis to the Theories of Electricity and Magnetism.

This Essay will commence with an exposition of the general principles common to both theories; which will be followed by particular applications of them to many cases not hitherto submitted to calculation.

On the 10th of February, and on the 18th of each succeeding month, a work is to be published at Chelmsford, entitled The Herald of Flora; containing, 1. A Calendar of the Essex and Midland Flora; 2. Brief Notices of new Periodicals, and other works on Botany; 3. New Discoveries in Vegetable Medicine, and other news; 4. Original Papers on Miscellaneous Subjects connected with Botany and Medicine.

Dr. Forster, of Chelmsford, has undertaken the editorship of this miscellany.

THE LANCET.

Vol. I.] LONDON, SATURDAY, FEBRUARY 9. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY
DELIVERED AT GUY'S HOSPITAL BY
DR. JAMES BLUNDELL.

Lecture XVIII.

After-management of Floodings, and on Transfusion.

When discharges of blood from the uterus have, in a great measure, subsided, you ought not too hastily to leave your patient. Though not frequently, yet it sometimes happens after these floodings have been arrested, that spontaneously, or in consequence of some movement of the patient, the flooding is unexpectedly renewed; or it may be, although the discharge of the blood have been stopped, and the patient have rallied somewhat, yet that she again sinks; to rally and sink again, as stated in a former lecture, until ultimately she dies. When the flooding is stopped completely, and the discharge has been sparing, to remain with the patient is scarcely necessary; but it is a good rule when the blood has been lost in large quantities, that you continue with your patient for some time afterwards—(four or six hours for example,)—a longer or shorter period, according to the degree of apparent danger.

When the floodings have been arrested, you will be asked by the nurse, and those around you, whether the patient may not be put into bed and made comfortable, an expression which every Englishman so well understands. Now, if the loss of blood be small, and the patient have thoroughly rallied, to *putting to bed*, as it is phrased, there is no obvious objection; but recollect, for it is most important, that where there have been large effusions of blood, such as we have been engaged in considering, to put the patient to bed would be an operation of no small danger. In a former lecture I think it was observed to you, that one patient I had seen perish, in consequence of being moved too soon after the bleeding; and more than once after very large bleedings, I have seen a great deal of vascular commotion produced, not without alarming symptoms, merely by lifting a woman from one side of the bed to the other,—and this, notwithstanding the hæmorrhage had been stopped for three or four hours. For myself, when women, having bled very profusely, are reduced to a state approaching to asphyxia, it is my custom to direct that the patient remain twelve or twenty-four hours as quiescent as may be; I had almost added without stirring hand or foot. While she is lying in this state, napkins may be placed about her, to protect her person from the wet and soil, and to contribute, as much as possible, cautiously, however, to her comfort; were you to disturb the patient much, even by performing these small offices, death itself might, in the *extremer* cases, be produced by a renewal of the bleeding, or a sudden commotion of the vascular system.

If hæmorrhage is going on externally, in the general it cannot be overlooked; the patient tells you that she feels the blood trickling or running away; and, if she lie near the edge of the bed, sometimes it bursts forth so copiously, that you hear it fall upon the floor. It sometimes, however, happens, that unobserved hæmorrhages are going forward internally: blood clots over the mouth of the uterus; the uterus becomes dilated in consequence of accumulations in the uterine cavity. All this may be overlooked by the accoucheur. Nor must it be forgotten, that, when a woman is lying in the middle of a very large bed, a sort of hollow may form in the middle, in consequence of her lying there; and in this hollow, unperceived, a considerable quantity of blood may now and then accumulate. After large flooding, therefore, recollect that hæmorrhages may be going on unmarked, the blood sometimes accumulating in the centre of the bed, and still more frequently lodging in the uterine cavity, danger stealing on the patient in silence and unknown.

Watch, therefore, otherwise you may now and then approach the bed side and find your patient dying, or approaching to a state of asphyxia. The external hæmorrhages, or those in which you have an accumulation in the bed, are easily detected. Sitting by the bed side, and asking how the patient feels, you learn, perhaps, that her strength seems as if it were going from her, and that she perceives the blood running, and, on examination, you observe that faintness is approaching; symptoms which, in common prudence, lead to an inspection of the bed, when the bleeding is easily detected. Nor is there a difficulty in making out an internal bleeding: lay your hand upon the abdomen, above the symphysis pubis; feel for the uterus; grasp it, and should it be small as the head of the full-grown fœtus, then there is no blood in its cavity; but, should you find it large as the mass I here show you, or big as the womb at the seven months, and further, on compression, should clots of blood come gurgling away, then there is no doubt that internal hæmorrhage has taken place.

After smaller losses of blood, as at other times, it seems proper enough to bind up the abdomen, (by Gaitskell's bandage for example,) though this is less necessary, so long as you are placed at the bed-side, and grasping the womb with the hand. But when the eruption of blood has been copious—with a view of securing the contractions of the uterus, and thus preventing the return of the hæmorrhage, we ought to compress the abdomen with more than ordinary care. Not to tickle your risibility by enlarging on the advantages of taking your seat upon the patient's abdomen, or of making it a sort of desk on which to lay a folio bible, with a heavy comment, to increase its anti-hæmorrhagic power, I may observe simply, that after a bandage has been applied, the uterus grasped by the interposed hand, may be kept in the contracted state, when the case is more pressing; or, in less urgent emergencies, the bandage may be used with the interposition of a pillow over the abdomen, in front, if you wish to increase the pressure, and, in this manner, the contracted condition of the uterus may be rendered more sure, and the internal bleedings may be prevented. Externally to the dress, or over the body-linen, the bandage may be put on; the less disturbance the better. It is useful to apply these bandages before the delivery takes place, when they may be easily tightened afterwards.

I am accustomed, and to you I recommend the practice, to apply clean napkins to the genitals even after the hæmorrhage has ceased; removing and inspecting these napkins occasionally. If there is no blood on them, or but little, it is clear that copious hæmorrhages cannot be going forward; more especially if, before inspection, we have made any pressure on the uterus, so as to urge forth any blood that may have accumulated there; on the other hand, if we find a broad red stain, with clotted blood upon the napkin, that the flooding is prone to return, there can be little doubt.

If a hæmorrhage is arrested, you may be asked, by the nurse and friends, whether it is not proper to administer *nourishment*? Now, if you find the patient is improving, the limbs warming, the lips reddening, the pulse enlarging, the frequency of the cardiac beat diminishing, the energies of the mind reviving,—in such a case, it is wise to let well alone; I would dissuade you from interfering much with nourishment, for nourishment taken into the body where women are much reduced from the loss of blood, owing to the debility of the digestive organs, will probably be of little benefit. But, if the woman is sinking lower continually — gradually subsiding into the grave—in order that nothing may be left undone, nourishment should, I think, be administered. From the first, the bleeding ceasing, moderate quantities of nourishment may be given; to solids the patient may have a disgust; from the state of the œsophagus, she may not be able to swallow them; at all events, in this exhausted condition, she may be unable to chew them well; but milk, broth, eggs prepared in any way, if soft, may be recommended. From three to six ounces of liquid nourishment may be thrown into the stomach every three or four hours, especially if it seem to agree.

When large hæmorrhages have occurred, you will sometimes be surprised to see the rally which is effected in the course of four-and-twenty hours. The pulse, it may be, is sunk below 100; the cheeks are red, the energies considerable. On the other hand, however, if the discharge of blood have been large, and if the woman is of that sort of constitution (often met) which cannot sustain itself against the hæmorrhage, various symptoms are likely to manifest themselves in the course of the first two or three days, of which the following may deserve your notice:—For women to have a great deal of head-ache is by no means uncommon, and with it is joined a certain lightness, aggravated when the head is raised from the pillow, the symptoms, according to Dr. Haighton, not being relieved by leeches and blisters, remedies which, from his dissuasion, I have been induced not to essay. My valued relative imagined, not without good reason, that the cephalic symptoms arose from the want of blood in the vessels, and conceived that they would therefore be most effectually relieved by nourishment introduced into the stomach.

For sometime, for a week or a fortnight for example, this *cephalagia* may be continued; but, though somewhat alarming on account of the lightness, it seldom terminates in any serious cerebral attack. With irritability of the alimentary tube, the patient is occasionally assailed; vomitings sometimes, and still more frequently purgings. This diarrhœa, if moderate, may do the patient but little injury; but, should it prove, as it not infrequently does, both obstinate and copious, under the purging the patient may be carried off. An atonic, fretful, perhaps an aphthous inflammation of the mucous membrane of the stomach and the bowels, terminating in excoriation, I suspect to be the proximate cause of this disease; and I look upon it as produced by general ill health, the result of the inanition; this inflammation, or inflammatory erythism, as in the nose, the lungs, or urethra, producing an excitability of the part. *Opium, chalk, aromatic confection, hæmatoxylon, dry diet*, and the removal of the patient into the country as soon as possible, are the best remedies. Dry diet and change of air have sometimes the best effects. For a considerable time before his death, the Epicurus and Lucian of his age—Hume, the historian—laboured under a diarrhœa, which ultimately destroyed him; yet it is remarkable, that, for health or business, having occasion to make a journey southward from the Tweed, he found more apparent relief from this excursion than from any other remedy. It was with the knowledge of this fact upon my mind, that I tried the effects of removal in a desperate diarrhœa, occurring after flooding, under my own care—"Remedium anceps satius quam nullum." Though the experiment was dangerous, and the patient was reduced to the last degree of debility, by my advice she was put into an invalid carriage and sent to Stamford Hill, so ill, that her apothecary became her attendant, as it was doubtful whether she would reach that place alive; yet although, with little or no benefit, we had been trying all the more effectual remedies while she remained in town, and in Bishopsgate too, a part of the metropolis, perhaps, not the most unhealthy, in the course of a few days after her arrival at the Hill, the diarrhœa of itself ceased, and a full impression was left upon my mind, that the journey and the change of air were the remedies to which her recovery was to be referred.

Of course, after these large eruptions of blood from the uterus, the patient becomes very much reduced in her strength. Now, for this weakness, mere drugs are of very little avail; time and patience, and the occasional use of medicines to meet particular symptoms; supplies of nourishment, large as the stomach may bear; the country air; the sea-shore;—these are the remedies. The woman wants a full supply of blood; transfusion, day after day, may perhaps be recommended hereafter, in order to furnish this supply; but, till the safety and efficacy of the remedy in these cases has been proved and acknowledged, it is to the other medicinals which have just been enumerated that we must confide this supply.

There are some women who suffer dreadfully in consequence of their miscarrying in the earlier or later months, (but more frequently in the earlier,) becoming pregnant again too soon, and miscarrying, perhaps, no less than *nine* or *ten* times in the course of *two or three years*, and losing each time large quantities of blood. Of course these repeated floodings very greatly reduce them. Now, in such cases, I would strongly recommend abstinence from further communication, at least for a time, so as to allow the genitals to recover. To use the agricultural expression, the land should lie fallow (laughter); but I know not how it happens, frequently the male portion of the genital apparatus, sometimes the female, is in fault, so that occasionally the scientific husbandman has no small difficulty in managing the soil agreeably to his own principles (continued laughter). Independently of abstinence from connubial intercourse, there are various preventives of impregnation, but I do not think it proper to disclose them.

Under large losses of blood from flooding, it is not often that aqueous effusions occur, yet now and then in bad constitutions, at first exhibiting inflammatory tendencies, the dropsical diathesis appears. If the legs or abdomen are the seat of the accumulation, there is less danger, but the patient may soon perish from effusion into the chest or head. More than once I have seen women who have survived the first losses of blood, sink in this manner; and one of the severest disappointments I ever experienced within or without the circle of my practice, was of this kind. A most interesting young lady, lovely, accomplished, amiable,—the admiration of her acquaintance, the idol of her domestic circle,—after a complete resuscitation, by transfusion, sunk under an effusion into the chest and pericardium. I had received (more gratifying to me than any other remuneration) the thanks of the friends; two very beautiful children in the lisping and imperfectly formed articulation of childhood, attempted too to stammer their thanks, when, two or three days afterwards, the hydrothorax showed that it had been gradually stealing upon its victim, and, after a short struggle, the patient sunk. There were extensive old adhesions in the chest, the consequence of severe measles in earlier life. You smile at my warmth, perhaps, but I acknowledge myself loth to believe that I shall ever meet such a disappointment again.

I shall now close the remarks which I have to offer generally on this tedious, but very important subject of flooding, by pointing out some three or four *errors*, which, in moments of negligence, you are likely to commit, in the hope that I may guard you against them. In the first place then, in the earlier months of pregnancy, where you have eruptions of blood from the uterus, if you think you are possessed of more than ordinary manual skill, you may, perhaps, feel an inclination heedlessly to thrust your hand into the uterus, in order to abstract the ovum; now, I have told you already, that although, in the earlier months, where the accoucheur is very skilful, there may, it is true, in individual cases, be an advantage in bringing away the ovum, by the introduction of the hand into the vagina, yet, as a general practice, it is to be condemned. *Unnecessary* manual interference, therefore, in the earlier months, is an obstetric error, against which you ought to guard. Remember, however, that in the latter months you may fall into another great error of the opposite kind; I mean the neglect of the delivery where the operation really is necessary, an error which may prove the destruction of the patient. In obstetrics generally, the rule is, to err, if you must err at all, on the side of *indolence*,—allow the expression. Err rather by not interfering where assistance is necessary, than by pragmatically and unnecessarily interfering where help is not required; for delivery being a natural process, the occasions in which you may interfere needlessly are endless; but in general midwifery, the cases in which you may err, by refraining from interference when really required, are few. *Nevertheless, feeling as I do, that this is a most wholesome principle, I very cordially agree with Denman, that, in flooding cases, we have an exception to the rule. These cases are so dangerous, and so much depends upon the practitioner, and more especially upon the emptying of the uterus, that, in these cases, I would more willingly pardon the too active, than the inert. More especially when floodings occur in the latter months, I would caution you against delaying the delivery too long, when delivery is really required.* And, if you attend to the general rules which have been laid down on this point, I think you cannot wander far from the right path.

There is yet another error against which you will do well to guard, and that is, the use of too much violence and hurry in conducting the delivery. In flooding cases, when delivery is required, there is danger, lest you abstain from the delivery too long; there is danger lest, having abstained till your patient appear to be on the point of sinking, you then, anxious to deliver her while breath remains, proceed with a rapidity or violence which may bruise, tear, destroy. Now, therefore, while your consciences are clear, before it is too late, I caution you against this formidable error—beware of delaying the delivery too long; and if delivery have been long delayed, beware, too, of using a force and promptitude of extraction greater than the parts may safely bear. In scientific midwifery, violence can have no place.

But again: I have told you that there are cases, and, indeed, I may say on the whole, many and most important cases, where, after great discharge, the patient is lying in a state approaching to asphyxia; now, in these cases, you may fall into the error of sitting down at the bed side without reflection, to disturb the clots, whether by examinations or by the introduction of the hand into the uterus or the vagina. Remember, however, I beseech you, what was observed yesterday; if, by operations of this kind, you break up the concretions and renew the hæmorrhage under the renewal of the bleeding, the woman will most probably sink. Against such a careless excitement of the bleeding, therefore, be, I entreat, upon your guard; consider again, and then reconsider the rules prescribed at our former meeting. If the bleeding of itself recur copiously, it may be necessary to operate; but so long as the discharge is arrested, wholly or in great measure, unless the patient be rallied thoroughly, refrain from manual operations. Perhaps it may be hereafter found in some of these cases, that, before the delivery, transfusion may with advantage be premised, and of this operation I now proceed to speak.

Transfusion.

The operation of transfusion, Gentlemen, I take to be of so much importance to mankind, that, having made it the subject of much thought and experiment, I seize with pleasure the opportunity which now offers, of treating the topic more at large. The general idea of transfusion, it is probable, has occurred to many in former times; and I am willing to believe, that it might not be unthought of by those mighty masters of antiquity, who, first discovering the principles of things to us who have followed them on the face of our planet, have left us only the less splendid honour of exploring those tracts of knowledge, which they originally pointed out. It is, however, certainly, to modern industry that we are indebted for bringing this operation into notice. Lower, in our own country, and Denis among the French, towards the middle of the seventeenth century, first demonstrated its practicability, by observations on the human body, and experiments upon brutes; nor, should I deem myself without blame, had I omitted to mention their names. To men of this kind I conceive it is—to men who not unsuccessfully make it their ambition to contribute discoveries in art or science to the general fund of human knowledge—that an age or country owes its lasting splendour. The mass of mankind seem hitherto to have been scarcely capable of distinguishing who are, or are not, their friends. Hemlock, or the cross, has too often been their reward; while the general ear has been wearied with the applauses of those, who, without honest principle, for their own aggrandisement only, have wielded the brute force of the species. Among the swinish multitude, as Burke was pleased to call them, each successive slaughter has raised still louder clamours, as we all know that the animal from whom he draws the comparison, is never so noisy as when it is perishing under the knife. But the age for this modish and destructive folly, has, I trust, already begun to pass away. Now that personal interests are vanished, who, among civilised nations, cares, in present times, to applaud a Jenghis—or a Timour—or a Nadir—or any other unprincipled devastator of days gone by—brute favourites of fortune—the destroying angels, or, if you will, the wholesale carcase-butchers of the East. As knowledge steadily advances, these men of mere violence will, I trust, appear before their brethren, the rest of the species, in their true characters; while the names of Socrates, of Plato, of Euclid, of Archimedes—shall I add it—of Timoleon, the Liberator, with still increasing veneration and applause, will, I persuade myself, descend to the latest posterity of that mankind whom they have benefited. But, to return.

If I have myself any claim, however small, to rank among the supporters of transfusion, it lies entirely in this: that, undeterred by clamour or scepticism, I have made it my endeavour, again, to bring the operation into notice; and to show further, by experiments on animals, and observations on the human body, that transfusion, as it is called, may be performed by the help of a syringe, under the use of which, human blood, of the kinds used alone fit for the operation, may be infused into human veins. In the original operation, brute blood was employed; but this, at least, if taken indifferently from animals, and injected in large quantities, is fatal. For the original operation, the presence of some animal in the bed-chamber was necessary; what then was to be done on an emergency? A dog, it is true, might have come when you whistled, but the animal is small; a calf, or sheep, might, to some, have appeared fitter for the purpose; but, then, it had not been taught to walk promptly up the stairs. In this condition of it, the operation, little more than a name, was great in its danger, but of small advantages in those very cases of sudden bleeding, in which it seemed most to be required.

Notwithstanding the sneers of his comic countryman, who placed him among the clouds, it was the just boast of Socrates, that he had brought down philosophy from her airy speculations, into the commerce of mankind; and much it is to be wished, that some able and long-lived experimentor would do the same kind office by physiology. To me, on weighing the considerations before enumerated, the great desideratum in transfusion appeared to be, that, being brought from our lecture-rooms, to which it had so long been confined, it might, in some improved form, be rendered safer, and more serviceable at the bed-side of the patient. Now, although it was evident that transfusion might be promptly (perhaps, however, not safely) performed, by means of a tube simply, provided the artery of a bystander could be laid open; yet, a more ready mode of rendering the operation practically useful appeared to be, by adapting to its performance the use of the syringe; and with the hope, in the end not disappointed, of accomplishing this point, I was led into the following train of investigation:—

That the blood of one animal may be substituted for the blood of another animal, of the *same species*, is a principle which has been placed beyond the shadow of a doubt. Repeatedly, as others before me, I have drained the dog till it lay in a state of apparent death, the blood ceasing to issue even from a tubule inserted into the carotid towards the heart, the circulation, therefore, being entirely arrested. The animal being, in this condition, to all appearance dead, I have transfused from another dog, and found, where the operation has been well performed, that the dog, to all appearance irrecoverable, has soon afterwards arisen from the table, as if it had experienced a resuscitation from the dead. It is true, indeed, that for two or three days, a little cachexia, or ill-health, has hung about it; but, in the course of a few days more, the animal has seemed to recover itself completely, becoming as well as before the operation was performed. Again,

By many it has been imagined hitherto, that, in the operation of transfusion, the blood of one genus of animals may be indifferently substituted for that of another genus; the blood of the sheep, for instance, for that of the dog; the blood of a calf for that of a man; a doctrine which I had myself imbibed. Accordingly, in some of the first experiments which were made, and which, as far as we can learn, were by no means very successful, the blood of the brute was substituted for that of the human body; but it was first suggested to me by one of my own esteemed and respected pupils, Dr. Leacock, that the blood of one genus of animals may not, with impunity, be substituted indifferently for that of another genus. Draining dogs of their own blood, he supplied them from the sheep; and found that, though the animal was resuscitated for a time, the blood of the sheep circulating in the veins, and performing the office of the canine, so that the dog was able to run about the room, yet, in the course of ten or twenty hours, I speak from memory as to the term, the animal invariably died. Read his inaugural dissertation, published at Edinburgh a few years ago: it is well worth attentive perusal. Consentaneous experiments, to be found at large in the "Researches," I have myself made with the human blood. From five dogs I abstracted their own blood, and, by means of a proper instrument, intromitted the human blood in its place; of those dogs one died on the table; two or three lived for a few hours, then sinking; and some surviving for four or five days, expired, after many cachectic symptoms. So that, it seems, from experiments of this sort, that the blood of one genus of animals cannot, in large quantities, be substituted indifferently for the blood of another, without occasioning the most fatal results. Hence, eminently rises a necessity for the employment of the syringe, as this enables us in human hæmorrhages to use the human blood; for, even though a horse or a sheep were at hand in the chamber, it is very doubtful whether the blood of that animal would save a woman sinking from bleeding, and I am sure it would be dangerous to try it.

Further: by a variety of experiments, I long ago satisfied myself, even previously to the publication of the cases already before the profession, that blood may be transmitted through the syringe as through the heart, without becoming unfit for the purposes of life. Deterioration it suffers, it is true, but not such deterioration as may render it unfit for the animal body. Several dogs I have drained so, that they lay in a state of asphyxia—in truth, appearing to be altogether dead. Dogs thus prepared, I have replenished by the use of the syringe with blood from other dogs, and they have done as well as if transfusion had been performed by means of the tube. It has not been in a few, but in many experiments that I have found this result; and how could I multiply experiments too much on a subject so important? Who that venerates reason, and has the love of mankind on the heart as well as on the tongue, will dare to tax such physiology as brutal.

To convince myself more satisfactorily, another scheme of experiments was made, varying in circumstance, yet turning on the same principle, of which the following is a rude idea:—

Directing towards the heart a tubule inserted into the femoral or carotid artery, and the corresponding veins, I placed near to these tubes a cup, in communication with a proper apparatus; then, allowing the blood to rush from the artery, as it gathered in the bottom of the cup, by means of an instrument called the *impellor*, figured in my "Physiological Researches," I absorbed the blood into the barrel of a syringe, and returned it to the veins, so adjusting the return to the eruption from the artery, that more than an ounce of blood was never allowed to accumulate in the cup of the syringe at one time. To omit less decisive observations, in some of these experiments, the operation was carried on for twenty or thirty minutes together, the blood rushing from the artery during the whole time, so that all the blood in the body of the animal must have passed the basin, and this too repeatedly, the dog, however, not appearing to suffer materially in consequence.

From experiments like these, given at large in the "Medico-Chirurgical Transactions," and the "Researches," I convinced myself that in the dog, at least, blood may be transfused by the syringe, without becoming unfit for the purposes of life; nor was it, therefore, I conceive, with enthusiasm or rashness, that I first came to operate upon the human body, but with a mind rationally prepared to the best of my power, by previous reflection and experiment. Is our common nature, in general, a good judge of enthusiasm?

These principles established, there are different ways in which transfusion may be performed; and I shall first briefly state to you the method approved now by experience, and which, perhaps, for general purposes, may at present be deemed the best. And first, then, the operation may be executed by means of a well-constructed two-ounce syringe, air secure, made of brass, tinned internally, not offensive with oil, of course perfectly clean, and to be used in the following manner:—One or two bystanders (males are preferable to females) being in readiness to supply the requisite quantity of blood, the arm of the patient should be prepared as follows: taking a scalpel, at one cut, if tolerably dexterous, you lay bare the bleeding vein, which opens on the eye under the knife, the patient being so far from suffering in this part of the operation, that frequently she is not aware that it has been done. The vessel manifesting itself, you take this short incurvated probe, which you slide beneath it at the lower extremity of the incision; afterwards, with a well-sharpened lancet, laying open the vein to the extent of about a line, that is, one-eighth of an inch; afterwards intromitting, cautiously, at this orifice the tubule of the syringe, so as to satisfy yourselves that when you operate, the entrance will be easy: at this time perhaps, a little blood oozes out. This preparation made, you bind up the arm of the person who is to yield the supply of blood, laying open the vein in the usual manner, but making the orifice rather free. In a conical tumbler, of large diameter, the blood may be conveniently gathered; and into the syringe, previously washed and chilled by transmission of water milk-warm, the blood is to be absorbed, as demonstrated, from the point of the tumbler through this long tubule, in such manner that, although the whole of the blood is not to be taken up lest the air should be drawn in, not more than a dessert spoonful is to be allowed to accumulate at once in the bottom of the vessel; in truth, it is not in the glass, but the barrel of the syringe that the blood should collect. This tubule should, as you see, be long enough to throw the barrel of the syringe above and beyond the brim of the tumbler, so that it may be completely out of the way. That it may enter the vein more easily, the end of the tubule should be bevilled, like the teapot spout.

Two ounces of blood from the arm being absorbed in this manner, holding the syringe vertically with the tubule above and the handle of the piston below, you slowly urge the piston onward, till, together with all air, about a dessert spoonful of blood has been expelled; and then closing the nozzle by the apposition of the tip of the finger, lest, the piston descending by its own gravity, fresh air should be absorbed, you give the instrument the horizontal direction, and proceed to insinuate the blood into the vein. On approaching the arm of the patient, perhaps you find the orifice obscured by the blood; touch the vein with a sponge, and the aperture may be read as clearly as the letter of a book. At this time an assistant may gently press the vein, where it lies across the probe, which will intercept a further exudation, for the circulation is so low that it is easily arrested. These preliminaries premised, without trepidation, with that calm and measured movement of mind and body, the result, not of mere animal spirits, but of that confidence which arises from a mind well prepared, you proceed to deliver the blood, cautious not to interpose unnecessary delay. For this purpose, the tubule being insinuated into the vein, to the extent of half an inch towards the heart, it is your next office to infuse the blood into the vessel, and very nice and critical is this point of the operation. What the heart in women or men might bear in a state of vigour I know not, but reduced as it is in these cases, feeble as the limb which refuses to sustain them, it cannot support a sudden influx of the blood. To infuse too slowly is an error no doubt, for, lying in the syringe, the blood every moment is becoming more and more deteriorated: but to inject too rapidly is a still more fatal error: gorge the cardiac cavities, and the patient may perish as suddenly as if shot through the heart. With moderated velocity it is that the blood should be infused, and most cautiously, when the collapse is great. In pressing forward the piston, from moment to moment, fix your eye on the countenance, and if all is well, then proceed more boldly; but if the lip quiver, or the eye-lid flicker, or if there be restlessness or vomiting, though these are not fatal symptoms, yet it is better to suspend your operation until they subside, as in the present state of our information there is good cause for alarm; and let me add, that after waiting in this manner, you must not return to the injection, until you have procured a fresh supply of blood. If the first two ounces load, it is better to wait a few minutes, say six or eight, before more is injected; but if these first two ounces are well received by the system, proceed immediately to inject other two afterwards, waiting for eight or ten minutes, till the whole have duly circulated over the body, and, in some measure, at least, have renewed its vigour; under the extremes of weakness, this caution becomes *especially* necessary. Sixteen ounces of blood for the female system is a large aggregate quantity—eight or ten are more sparing; four or five may, in delicate cases, turn the scale in our favour. If our object is simply to save life, the smaller quantities must be injected; if to restore vigour, the larger. Whether we transfuse or not after floodings, re-action is apt to come on next day. The entrance of a single bubble of air, though not fatal, is always to be deprecated. Inflammation of the vein is a neat topic of declamation; after the danger is blown over, listen with decent attention; till then you have not time to think about it—Antipater, and the myo-machia, may cross the classical mind. If the blood dribble from the arm which supplies you, or if it be slightly coagulated, it is unsafe, if not wholly unfit, for use. Wash the syringe between each injection. Watch the arm lest it inflame afterwards. If the respiration be stopped, it is, I fear, in vain to transfuse; if respiration is at its last gasp, the hope is small—a sudden influx of two ounces would, I think, certainly destroy in these cases. Would the heart bear, at proper intervals, doses of half an ounce?

if the respiration be steady, you are almost certain of success. The best syringes I know of are those of Laundy, Weiss, Reid, and Scott. Laundy's are made according to my own whim; of course I think them preferable. Transfusion from artery to vein, perhaps even from vein to vein, might be accomplished by tubule simply; could you, however, obtain readily those who would supply you in this mode, the arterial transfusion especially would require caution; if the heart were very feeble, an impetuous influx would destroy.

By means of this gravitator, blood may be transmitted. Water poured into the cup runs down the flexible vertical tube, which hangs below, expelling the air; being itself retained in the canal, by turning the tap, when not more than a tea-spoonful remains in the point of the conical cup here shown. The air being expelled in this manner, the tubule at the end of the vertical tube is inserted into the vein, and the arm which supplies the blood is held over the cup, as is usual in ordinary bleeding. A fall of two or three inches, perhaps less, is sufficient to insure the gravitation of blood into the vein—so empty, that it makes no resistance; the blood runs out of the cup into the body, as through any other vessel with leakage. The cup must not be suffered to run empty, as air will be carried in. The rapidity of the flow may be regulated by this tap in the throat of the tubule. I have contrived this instrument, in order that we may have it in our power to pass the blood direct, without delay, from one body to another. To learn the ready use of the gravitator, you should, when bleeding patients, transmit their blood through the instrument, as if you were operating. In this world of imposition, I suppose we may be forgiven, if we avoid objections, by pretending that this is done to prepare the blood for examination. "Mihi ignosco" may, perhaps, condemn the deception, and it may be not without reason. But let us now consider some of the objections against transfusion.

Against this operation it may be urged, as against most operations, that it is not without its danger; and it may be so. But this is no reason why we should lay it aside, if in any case it be necessary; for, in truth, every operation of surgery has its danger: amputation has its danger—the operation for hernia—the introduction of the catheter—the cutting for the stone, for all do not possess the dexterity of my very able colleague, Mr. Key. As, then, every operation we perform is attended with more or less danger, unless it be proved, which it cannot, that the injection of blood is attended with more surgical danger than ordinary, why should we urge this in a solitary manner as an objection against transfusion? Again, it is sometimes objected, that the operation may be needlessly performed; and it may be so. How often will you, in the course of your practice hereafter, give medicine, with no advantage to your patient, though it may be with some advantage to yourself. How often is venesection performed needlessly? How often has lithotomy been performed needlessly? How many legs have been taken off, where, if the patients had been under better surgery, they would still have had their limbs? Why, then, are we to bring this as a solitary objection to the operation of transfusion? If you transfuse too copiously, you may take the blood out again, but when you overbleed in inflammation, what will you do? It may be said again, that the operation may sometimes prove unavailing, and so it may; for he would be a bold man indeed, who would venture to affirm that this, or perhaps any operation, ought always to succeed. You amputate a limb, but sometimes the patient dies. You perform venesection, yet the inflammation proceeds notwithstanding, and destroys the patient. So that if you candidly weigh in your minds the arguments that are raised against transfusion, you will find they are objections which do not lie singly against this operation, but against surgery at large,—nay, against the whole of the medical art itself; sometimes not without danger, sometimes used without need, and sometimes not producing any obviously beneficial effects, and yet, after all, so well calculated on the whole, for the advantage of mankind, that no people, civilized or barbarous, are entirely without it. Why, then, I ask again, are these objections urged alone—against transfusion? Is it apathy—is it the trouble of learning—is it negligence of reasoning—is it that unnamed and unacknowledged feeling which devours itself—a very Proteus in the variety of decent garbs which it assumes?

After all, among the members of a liberal profession, like that of medicine, I persuade myself that these objections, even when urged without due candour, arise, at bottom, from no unworthy motive; perhaps from an honest conviction of the essential uncertainty of our art, and the risk, which there must be, of incurring new dangers, while we are flattering ourselves that we are the discoverers of new remedies.

> ———————— "Audi
> Nulla unquam de vitâ hominum cunctatio
> longa est."

The more the discussion, the more objection and defence the operation has to undergo, the better. If it be grounded in error, let it perish; if in just principles, it must survive. From the most violent conflicts of opinion, truth has nothing to fear; though long to us, to her a thousand years are but as one day—a point—a nothing in the eternity of her duration. Oppressed, among us, beneath the chaos of human follies and errors, she must, she will emerge unhurt at last—unchangeable as her author. By the mere force of durability, she must ultimately stand alone—solitary amid the wreck of those perishable materials, by which, for a time, she is overwhelmed—"and the ark floated in the midst of the waters." To her, the living spirit of philosophy—immutable, immortal, infinite, eternal truth—to her, parent of all knowledge—fountain of light, may be addressed, without perversion or hyperbole, the sublime apostrophe of the poet—

> "The stars shall fade away, the sun himself
> Grow dim with age, and nature sink in years,
> But thou shalt flourish in immortal youth:"

you know the rest.

When on the subject of transfusion, I should be guilty of criminal injustice were I to forget to mention with applause the names of Doubleday and Waller. Their exertions stand in need of no commemoration from me, but I may be allowed to remark, that, whatever advantage may be hereafter derived from this operation, to them mankind will be largely indebted for it. Through evil report and good report, they have laboured devotedly to uphold and practise it; and, I trust, that in the approbation of the public, and that complacency of feeling which arises from the consciousness of not having ill deserved, they may, hereafter, find the full remuneration of all their exertions.

LECTURES ON CHEMISTRY,

BY

MR. FARADAY,

Delivered at the Royal Institution of Great Britain.

Lecture XXVI.

On the General Properties of the Metals.

We have now to consider a very numerous and important class of substances, many of which were very carefully examined by the older chemists, but the major part of which are of recent discovery; and I shall, therefore, occupy this lecture with a description of the general properties of the metals.

Of these, there are about forty or fifty, and I always mention my suspicion of their being compound bodies, for it is not altogether consistent with our views of the simplicity of nature, to admit the agency of so many simple or elementary bodies.

Their names are as follow:—

Gold
Silver
Copper
Iron
Mercury
Tin
Lead
Zinc
Bismuth
Antimony
Arsenic
Cobalt
Platinum
Nickel
Manganese
Tungsten
Tellurium
Molybdenum
Uranium
Titanium
Columbium
Palladium
Rhodium
Iridium
Osmium
Cerum
Potassium
Sodium
Lithium
Barium
Strontium
Calcium
Magnesium
Silicium
Alumium
Yttrium
Glucinum
Zirconium
Thorinum
Selenium
Cadmium.

The first seven metals on this list, namely, gold, silver, mercury, copper, iron, tin, and lead, were well known to the ancients, and were supposed by them to have some mysterious relation to the planets, and were represented, accordingly, by the same symbols. Now, of these, gold, silver, mercury, and copper, are found in the metallic state in the bowels of the earth, and are, therefore, easily distinguishable. Tin, lead, and iron, probably owe their discovery to accidentally passing their ores through the fire. In 1541, Paracelsus discovered zinc; bismuth was obtained about 1530 by Bermannus; antimony by Basil Valentine about the close of the fifteenth century, and from that time down to about 1773, there was a cessation of discovery, and then cobalt and arsenic were discovered. And I mention to you the dates of the discoveries of these metals, to show you the fact, that not one of the metals was discovered by the alchymists; which is sufficient to show the inutility of their labours.

The first general fact to which I shall call your attention, is the state in which the metals are found in the earth. Metals are sometimes found *native*; here is a piece of gold from the county of Cornwall; here is a piece of crystallized native copper from the same county, and the ores of the four metals which I have named as occurring native, are easily reduced by the action of heat and carbonaceous matter. Then, again, some metals are found in combination with *oxygen*, in the state of *metallic oxydes*; and, indeed, the affinity of some of the metals for oxygen is so strong, that we can never expect to find them without it. Other metals are found in combination with *sulphur*, forming a very numerous class of ores, the *native sulphurets*; such are, the ore of lead called galena, the ore of zinc called blende; and the sulphuret of iron or pyrites, or mundic, as it is called by the miners, which is, however, of no great use, except, perhaps, in the manufacture of the sulphate of iron. You may generally consider oxygen and sulphur as the mineralizing agents.

The first thing which strikes the attention of the observer of a metal in its clean and pure state, is its perfect *lustre* as you see here in a plate of glass, and in the mercury contained in the basin. And the property, which in its minute relation is closely connected with it, is its perfect *opacity*; but yet there is some reason to believe that when attenuated to a certain degree they may be capable of transmitting light; and if you hold up a piece of leaf gold to a good light, a certain quantity of light appears to be transmitted of a greenish tint. When speaking of the laws and propagation of heat, we mentioned that the metals were good conductors of heat and electricity. At one time a high specific gravity was given to the metals, and formerly a certain amount of specific gravity was given, which was to decide whether the substance should be deemed a metal or not, namely, that it should be at least four times as heavy as water; but this definition of the character of the metals has been done away with recently, and we now have metals even lighter than water.

You have here a list of some metals, with their specific gravities attached, and you will see the greatest difference in them in this respect, some being the lightest, and some the heaviest solids known. The following is a copy of the table:—

Platinum	21.00
Gold	19.30
Tungsten	17.50
Mercury	13.50
Palladium..........	11.50
Lead	11.35
Silver	10.50
Bismuth	9.80
Uranium	9.00
Copper	8.90
Arsenic	8.35
Nickel	8.25
Cobalt	8.00
Iron	7.78
Molybdenum	7.40
Tin	7.30
Zinc	7.00
Manganese	6.85
Antimony	6.70
Tellurium..........	6.10
Sodium	0.972
Potassium,.........	0.865

Water is here reckoned as 1., so that platinum is 21 times heavier than water; gold 19 times, tungsten 17½ times, and sodium, the base of soda, is only .972, water being 1.000; and potassium, the base of potash, only .865; so that you see that the two last metals are lighter than water. I have to mention the fact in connexion with the specific gravity of the metals, that their specific gravity may be increased by mechanical means, as by compressing them, by hammering, by which their specific gravity may be much increased. You are to understand, therefore, that the table I have shown you refers to that state of the metals in which they are found after fusion, and allowed to cool gradually, and not in their hardened state.

It has been usual in this part of the course, to point out the manner in which the specific gravities of solids and liquids are obtained, and I should not be justified in departing from that usage. The specific gravity of a body is an important datum for the chemical philosopher, and, therefore, the mode of arriving at it must be conducted with great nicety. The specific gravity of a solid is merely the relative weight of an equal bulk of any given body with an equal bulk of water, and in all these cases water is therefore referred to as unity.

To ascertain the specific gravity of a solid, we employ a very delicate balance called the *hydrostatic balance*, so contrived as to admit of substances being attached to one of the scales by a horse hair, or bit of silk, and then ascertain its absolute weight in air; and it is then immersed in distilled water of the temperature of 60°, and the beam being again brought to an equilibrium, we learn the weight lost by the immersion, or, in other words, we discover the weight of its bulk of pure water. We then divide the sum of its absolute weight, by that of the weight which it lost in water, and the quotient is its specific weight compared with pure water of the temperature named. So that let us suppose that a piece of metal was weighed in air, and found to be 360 grains; if on being weighed in water it lost 60 grains from its buoyancy, you would then say, that 360 divided by 60, gives 6, which would be the specific gravity of the metal. To ascertain the specific gravity of a liquid, such as mercury or ether, we weigh them in a thin bottle, holding a given weight of water, at a temperature of 60°; the difference between the weight of the liquid to be afterwards weighed, and the water, gives you the specific gravity of that liquid.

Another important property belonging to the metals, is their extreme *malleability*, or in other words, their extreme distention without division. We regard gold, silver, and copper, as possessing this property in the greatest degree; but some of the metals, such as antimony and bismuth, have no such power; the particles of metal separating under the pressure of the hammer, and being by such pressure reduced to powder. The different degrees of malleability possessed by the metals, you see set down in this table:—

Gold
Silver
Copper
Tin
Cadmium
Platinum
Lead
Zinc
Iron
Nickel
Palladium.

This property of malleability is particularly affected by heat, and this is peculiarly shown in zinc; when the temperature of zinc is raised to 280° or 290°, it is found to be capable of extension into very thin plates, and, what is more extraordinary in the physical condition of the metal, is, that it retains its malleability after its temperature has returned to its former degree, at which the metal was before very brittle.

The *ductility* of metals is nearly connected with their malleability, by which they allow of being drawn out into wires, and by the *tenacity* of a metal is meant the power of supporting a weight without breaking; but the most tenacious metal is by no means the most ductile. This table shows you the relative difference of tenacity and ductility of some of the metals.

Ductility.	*Tenacity.*
Gold	Iron
Silver	Copper
Platinum	Platinum
Iron	Silver
Copper	Gold
Zinc	Zinc
Tin	Tin
Lead	Lead.

The tenacity of iron is very great, and it has been of late turned to good account in the erection of suspension bridges, and the formation of iron piers. In order of hardness, tungsten and palladium are the hardest; but some of the metals are very soft, as lead for example, which you might cut with the nail, and if you put a piece of lead upon an impression on sealing wax, and give it a smart blow, it will receive a distinct impression from the wax, which shows you that the wax is harder than lead. Well, then, some of the metals, the hardest, are sonorous and elastic. They are all, with the exception of mercury, presented to us in the solid state, and they may be all rendered fluid by an increase of temperature. Mercury freezes at a temperature of 90° below Fahrenheit; and, as far as we have been able to carry our experiments, all these metals may be made to assume the aëriform state, or be volatilized. Mercury boils at 644°, and silver and gold have been proved to rise in vapour.

All the metals combine with *oxygen* in different proportions, as compared the one with the other, and you see from the table before you the weight of metal which combines with eight parts by weight of oxygen, and you see the remarkable diversity of the power possessed by the metals of combining with oxygen; and so different is this attraction for oxygen, that one metal is often oxidised at the expense of another; but it has been found that all the metals combine with oxygen in definite proportions. The bodies which result from the combinations of oxygen with the metals are very varied in colour and appearance, in density and solubility, and in their chemical properties; sometimes they appear to be perfectly neutral in their action on water; sometimes forming strong acids, as is the case with arsenic; sometimes forming alkalies, as potassa and soda, and at other times earths, as with zinc and calcium, and so on. The affinity of the metals for oxygen is very much influenced by their temperature; here is a piece of lead, which you see is bright, and if exposed to oxygen it will remain for hours and days without being acted upon, but, if heated, it rapidly attracts the oxygen and becomes converted into an oxide of lead.

The various operations by which the oxides are reduced will come before you in the after part of the course. The metals unite with chlorine and iodine, and as many of these are medicinal compounds, they will be considered in detail hereafter; they enter also into into combination with sulphur, and form a numerous class of salts in their combination with the different acids, all of which will be hereafter considered.

Various classifications of the metals have been adopted by different persons, some dependent on their physical, others upon their chemical properties; but in either of these arrangements considerable difficulties are met with in consequence of the gradual transition of the metals of one class into another. In this course of lectures the metals will be considered in the order in which they are set down in the table, which you see here, which is merely that of their attraction for oxygen.

1 Potassium
2 Sodium
3 Lithium
4 Calcium
5 Barium
6 Strontium
7 Magnesium
———
8 Manganese
9 Iron
10 Zinc
11 Tin
12 Cadmium
———
13 Copper
14 Lead

15 Antimony
16 Bismuth
17 Cobalt
18 Uranium
19 Titanium
20 Cerium
21 Tellurium
22 Selenium
23 Arsenic
24 Molybdenum
25 Chronium
26 Tungsten
27 Columbium

---

28 Nickel
29 Mercury
30 Osmium
31 Iridium
32 Rhodium
33 Palladium
34 Silver
35 Gold
36 Platinum

---

37 Silicium
38 Alumium
39 Zirconium
40 Glucium
41 Yttrium
42 Thorinum.

The first seven of these produce alcaline oxides, which are very difficult to reduce, and they rapidly decompose water at all temperatures, which show their powerful attraction for oxygen; the next five decompose water when they are heated to redness; the next ten do not decompose water at a red heat, nor do the next five, which produce acids by uniting with oxygen. The oxides of these twenty-seven metals are not reducible by heat alone, although some of them give out oxygen when heated. The nine next, osmium excepted, have comparatively a feeble attraction for oxygen, and when their oxides are heated they are reduced to the metallic state. The last six have been assigned to the class of metals only from analogy, and have only hitherto been known in the state of oxide.

In the next lecture the chemical character and properties of *potassium*, and its compounds, will be considered.

FOREIGN DEPARTMENT.

RHINOPLASTIC OPERATION.*

M. Delpech, of Montpellier, lately read a paper to the Royal Institute of France, on the formation of new noses.

This skilful surgeon has performed the rhinoplastic operation twelve times. The following is the result of his experience:—

1st. That it is a bad plan to make the nose with the skins of any part of the body, except the forehead.

2nd. That the two branches of the ophthalmic artery are of great utility, in preserving the vitality of the part.

3d. The most advantageous form of the flap, is that of a trident. M. Delpech approximates the edges by sutures, which, he thinks, are much undervalued by surgeons, and, consequently, too much neglected.

4th. In order to apply the flap to the edges of the nasal fossæ, M. Delpech cuts away the angles of the flap, and unites them by means of sutures.

5th. M. Delpech begins by paring away the edges of the nasal fossæ, and lays bare the rest of the cartilage. He particularly advises that no lint, or any other foreign body, be introduced beneath the flap, as by such a plan, too great a degree of inflammation, and even gangrene, might be produced. It is not until the cicatrix has been completely formed, that M. Delpech divides the apex, or point of the flap.

*Sitting of Surgery.**

BLINDNESS FROM WORMS IN THE EYES.

M. J. Cloquet communicated to the Sitting, a curious case of a man attacked with several subcutaneous abscesses on the head, in consequence of a considerable deposit of the eggs of flies on this part. An old man fell asleep in the open air; the flies, attracted by the bad odour which exhaled from his body, deposited their eggs in great numbers between the eyelids, in the auditory passages, on the cheeks, the head, and beneath the prepuce. After a few days the eggs produced larvæ, which, at first, occasioned a very troublesome itching, then several abscesses formed beneath the integuments of the head, and the temples, and in the orbit. When the man was admitted into the hospital, there was an ichorous discharge from all these parts, from the auditory passages, and the prepuce, containing a number of small worms, which were found to be the larvæ of the *musca carnaria*. M. J. Cloquet removed a great quantity of these worms, and employed mercurial frictions to destroy the remainder. At present, the patient is in a fair way of recovery; but, from the worms having perforated the eyes, he is quite blind. Notwithstanding the extent of mischief produced by these animals, no hæmorrhage occurred. M. Larrey stated, that he had often seen, during the campaign in Egypt, worms in wounds; but they never attacked dense tissues as those of arteries, which might account for no bleeding having occurred in the case related by M. Cloquet.

TRANSPOSITION OF THE VISCERA.

M. Serres recently exhibited to the students dissecting at the Pitré, a case of complete transposition of the viscera. The apex of the heart was directed towards the right side, its left and posterior ventricle was situated anteriorly and to the right, the right ventricle posteriorly and to the left side. The arch of the aorta was on the right, as was also the trunk of the common carotid, the arteria innominata being on the left side. The right lung had but two, the left three, lobes. The situation of the viscera of the abdomen was entirely inverted, the stomach being on the right, and the liver on the left, side, &c. This malformation presents a striking analogy with the case which was observed by Morand, and is recorded in his *Recueil d'Observations Chirurgicales*, p. 389. obs. cxii.

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* Nouvelle Bibliotheque Medicale, Dec. 1827.

* Archires Generales, Dec. 1827.

ROYAL INFIRMARY.

" *A Case of Gangrenous Erysipelas, in which Amputation was performed without success.*"

On the 10th of January, D. Hume, aged 72, presented himself for admission, on account of gangrenous erysipelas of the arm. The whole limb, from near the axilla to the ends of the fingers, was enormously swelled, of a dusky red colour, and over the wrist and metacarpal bones, where the inflammation was most intense, approaching a livid or purple hue. On various parts of its surface there were several large bullæ, some filled with a semitransparent, and others with a dark brown fluid. His condition might be best described by the term moribund, his pulse being extremely frequent, feeble, and irregular; and some doubts were entertained of his surviving the approaching night. Ten days previously, he stated that he had received a bite on the fore-finger, inflicted by a boy in a new-year's-eve frolic; that nothing had been applied during that interval but poultices; and that in the early part of his life he had been a soldier, and at all times addicted to taking a " drap." He was seen by Dr. Hunter on admission, who made five or six incisions, about two inches in length each, in the arm; and ordered wine to be given in small doses until the pulse rose, and a fermenting poultice to be applied over the whole limb.

11. Ten ounces of wine were taken yesterday; rested tolerably well; pulse somewhat improved in strength, at 116, but still irregular; tongue covered with a yellow mucus; pain and tension of the arm less; no evacuation from the bowels. Ordered the wine to be continued, the quantity to be regulated by circumstances; two grains of the sulphate of quinine to be taken in an ounce of camphor mixture every fourth hour, and the fermenting poultice to be applied as before.

12. Twelve ounces of wine have been taken since last visit; and the camphor mixture omitted and resumed, according to the state of the pulse. Being restless in the beginning of the night, a grain and a half of opium was given, but producing no effect, another grain was taken in the morning, after which he had some sleep. Pulse 120, irregular, but of fuller volume; tongue unaltered, and has had no motion of the bowels. Scarcely any alteration in the appearance of the arm, except the swelling being slightly reduced; the wounds made in it show no disposition to suppurate, being quite open, and filled with a fluid of a beer colour, and complains of no pain in the parts. Camphor emulsion to be discontinued; from four to ten ounces of wine to be taken as the pulse may indicate its necessity; two grains of quinine every four hours; three drachms of castor oil immediately, and should it not operate in four hours, an emollient injection to be administered; fermenting poultice as before.

13. Has taken six ounces of wine yesterday; three motions after the enema; and is reported as having rested tolerably well. He is, however, in every respect worse this morning; the countenance, but little affected before, is to day sunk and cadaverous; pulse 120, is again extremely feeble and irregular; tongue furred, but moist. The inflammation has extended on the posterior aspect of the arm, a little towards the axilla; the skin around the wrist seems quite detached; large bullæ are still forming on the arm; and the wounds continue in the state described in last report. Camphor mixture to be resumed immediately, and given as directed before along with the quinine; ten ounces of wine in small doses if necessary, the same poultice to be continued.

14. Seven ounces of wine have been taken yesterday; camphor mixture discontinued after the first dose, in consequence of its influence on the pulse; he is somewhat better to-day; the pulse, 116, is firmer, but irregular; tongue still furred and moist; rested tolerably well; complains of no pain; bowels opened twice. Swelling and redness of the upper part of the limb diminishing; three of the wounds have suppurated; he is now able to move the fingers; no line of separation has yet formed. Treatment to be conducted on the same plan hitherto observed.

15. Eight ounces of wine have been taken yesterday; and the prescribed quantity of quinine, without the camphor mixture. There is scarcely any alteration in his symptoms to day; the pulse continues of much the same quality, quick and irregular; slept a little during the night; bowels opened thrice by an injection. Local appearances unchanged; some of the wounds suppurating, others filled with a brown serum; a line of separation would seem to be forming above the elbow, but it is extremely unde-

fined, the inflammatory redness running into the sound parts, except at a few points, without any obvious limits. Treatment the same in all respects as before.

16. Yesterday a consultation was held on the propriety of amputation, and it being considered impossible for nature to repair the injured parts, and that the patient was now in a state capable of bearing the operation, it was performed to day by Dr. Hunter in the common circular manner, a little above the middle of the humerus. On dissecting the amputated limb, the muscles of the fore-arm were found flaccid, but not entirely deprived of vitality; the cellular membrane, however, over the carpus and metacarpus, was found completely destroyed, and a small quantity of matter diffused among the thecæ of the extensors of the hand.

17. Has taken four ounces of wine; and an antimonial draught, with thirty drops of laudanum at bed time. He has slept some time during the night and this morning; his tongue is moist, and cleaner; and he states himself as more comfortable; pulse 110, improved in strength and regularity; bowels moved once. His answers to questions are not always consistent; and on awakening, he sometimes talks incoherently. Quinine to be discontinued; three ounces of white wine in whey to be given in the course of the day; barley water for drink, and beef tea for food.

18. Four ounces of wine were taken yesterday; rested badly, having raved at times during the night; severe pain and starting of the stump; sweated freely; pulse 105, soft, irregular; no motion since yesterday. Suppuration in the stump has commenced; "partial evaporation ordered to be kept by cloths dipped in water, so as to moderate, without entirely repressing inflammatory action." The wine, to which his restlessness in the night was attributed, to be discontinued, and some saline solution to be given, and an enema, immediately; beef tea, soft boiled egg, or anything else he may prefer for food.

19. Rested much better last night; perspired freely; has had two motions since last visit; pulse 103; improved since yesterday; tongue moist, but covered with yellow mucus; no pain or starting of the stump last night, and considers himself better. Dressings have not been entirely removed, but there seems to be little inflammation of the part. Treatment the same as before.

20. He is much worse to-day; has had scarcely any rest; complains of severe pain of head; several rigours in the night; sweated profusely, and is affected with diarrhœa. Dressing removed; no attempt at union has been made; the lips of the wound are quite open, and covered by a dense layer of inspissated pus, and the stump considerably swollen; discharge thin, and copious. Ordered infusion of roses, and sulphuric acid during the day, and chalk mixture, with a portion of wine should the pulse sink; stump lightly dressed, and a poultice applied over it; rice-pudding or egg to dinner.

21. His pulse becoming very feeble and intermitting in the evening, five ounces of wine were given, diluted with water, last night, after which he rested better than the night before. Pain of head, and diarrhœa, have ceased; pulse 104, firmer, and fuller; thirst excessive, without any appetite. Six or more ounces of wine to be given, if necessary; acid, and infusion of roses, as before; chalk mixture if required; resinous dressing to be applied to the stump, and a poultice over it.

22. He has taken eight ounces of wine yesterday; is much worse to-day; no rest during the night; several severe rigours this morning; pulse 130, feeble, compressible, and irregular; tongue parched, and covered with a dark fur; has had two motions; breathing short, noisy, and laborious; discharge from stump profuse and fœtid. Wine conditionally ordered, and some porter, for which he expressed a wish; cretaceous mixture continued, and an opiate at bed-time.

23. Eight ounces of wine, and a pint of porter, taken since last night; has spent another bad night; hiccup this morning; pulse 120, feeble, and irregular; bowels opened once; discharge of stump copious and unhealthy, and continues in much the same state as when the dressings were first removed. Wine and porter to be given as required, with whatever food he may demand; dressings as before.

24. No longer a subject of medical treatment, or of reports, having all the symptoms of approaching death, which took place between six and seven o'clock in the evening. The case being looked on as illustrative of the disputed point of the proper time for amputating in gangrene or mortification, naturally excited much attention in the hospital; but, on this practical question, the case could have thrown no light; for, besides no regular line of adhesive inflammation having ever been formed between the sound and morbid parts, no conclusion could have been drawn, from the unsuccessful result of the operation in a patient of so great an age and debilitated constitution. The post-mortem examination, performed this day, explained none of the symptoms observable during life; further than to confirm a suspicion entertained by Dr. Hunter, that the constant irregularity of the pulse might have depended on organic disease of the heart, which was found on dissection to be slightly

diseased; and a factitious membrane, of considerable thickness, covering the left lung, the product of a previous inflammation.

SCOTUS.

Edinburgh, Jan. 27, 1828.

ST. THOMAS'S HOSPITAL.

ABSCESS OF THE CEREBRUM AND OF THE CEREBELLUM, FOLLOWING SLIGHT INJURY TO THE HEAD.—PURULENT MATTER IN THE SINUSES OF THE BRAIN.

T. B., ætat. 12, was admitted into Isaac's Ward, on the 26th of October, under the care of Mr. Green, under the following circumstances.

Ten weeks previously, according to his mother's statement, he received a blow on the forehead, which was followed by an abscess that was opened, and found to contain several ounces of pus. From this he recovered, and a cicatrix only was left at the part; three weeks before admission he had a fit, of an epileptic character, and to this succeeded incomplete paralysis of the left side.

When admitted his limbs were shrunk, his face pale, he had a peculiar wildness of the eye, and a peevish expression of countenance, mingled with anxiety. He was restless and irritable, screaming when spoken to or roused, and the only reply that could be obtained from him was, "my head achs;" at the same time lifting his hand to his forehead. The pulse was small, 120; the skin cool in general, but the scalp hot; the pupils (especially the right) much dilated; the bowels were much relaxed, several fœtid motions being passed daily unconsciously; the urine also dribbling away. He could not move the left, upper, or lower extremity, and pointed to any thing which he wanted, rather than ask for it.

The head was shaved, twelve leeches applied, and cold lotion subsequently. The chalk mixture was prescribed, and a drachm of *mercurial ointment* ordered to be rubbed in every night.

27. The leeches repeated; the bowels less disturbed.

Nov. 2. Has severe pain in the head, but he moves the left side more freely; the pulse is 130, small and thready. Continues the mercurial friction.

5. The gums are affected by the mercury; the heat of scalp is reduced, but still there is severe pain felt in the head at intervals. The power of motion on the left side has increased. Ordered a blister to the occiput.

12. The boy now has the power of retaining his urine and fæces; the capability of motion in the left arm and leg has still further increased; the pain of the head is very severe; the pupils are dilated, and almost uninfluenced by light; the surface of the body speedily becomes cold on exposure; the pulse continues to be quick and small. *Omit the mercurial friction.*

15. Repeat the blister.

19. Much the same. Ordered to take a dose of decoction of bark, with eight drops of muriatic acid, three times a day.

25. Has passed a very restless night, and is exceedingly irritable. There is a distinct puffiness over the seat of injury, (at the part where the cicatrix was described,) and it extends to the left eyelid; upon close inspection it is apparent that there is an accumulation of fluid in the cellular tissue; the skin is not red, but there is much tenderness on pressure. The pulse continues small and quick; he can move both extremities with equal facility; the pupils are dilated, but act somewhat more freely; the pain in the head continues, and the bowels are regular.

26. There is great peevishness manifested to-day; the boy cries on the slightest disturbance. The swelling of the scalp has greatly increased, and the veins of this part are seen much disturbed, even so as to render their minute branches perceptible. A lancet was plunged into the swelling on the forehead, when a continuous stream of blood (equal to that which issues from a free opening of the median basilic vein) flowed uninterruptedly for upwards of a minute, when it ceased spontaneously. No pus escaped from the puncture, and the swelling was unreduced; a deeper incision, or puncture, was made, and about half an ounce of cheesy matter exuded. A poultice was applied, and two grains of calomel given.

30. The wound of the forehead has healed; it discharged a small quantity of pus for a day or two.

Dec. 2. There is evidently some improvement; he says that he has less pain, and he is stronger; his appetite is improved.

12. From the date of the last report nothing material has transpired; the pulse has been variable with respect to its quickness, so also with respect to the pupils and amount of pain in the head. It is remarkable, however, that when the pain is violent then the pupils are dilated, and *vice versa*.

On the 18th, a further collection of matter was discharged from the forehead, and also from the angle of the left jaw. The bowels at this time were very much relaxed.

24. Is much reduced; the purging continues.

31. He died this morning, without any marked change having taken place in the symptoms.

Post Mortem Examination.

The body was examined on the 1st of January. The scalp formed the anterior boundary of the frontal sinuses, the bony wall having been absorbed; there was very little pus found in the cavity, and the frontal bone was carious to some extent around. The opening from the left frontal sinus into the nostril was larger than natural, and it had jagged and irregular edges. The frontal bone was *almost* perforated in many places, and completely in one, which opened into the skull.

There was no apparent disease of the tendon of the occipto-frontalis; it was said to be thicker than natural; there were slight adhesions between the dura mater and calvarium, and these were observed to be much firmer in the course of the longitudinal sinus, and in the vicinity of the injury. Numerous red vessels were observable in the dura mater, and over the sinuses it was very vascular. There was no pus between the dura mater and bone, at the seat of injury, notwithstanding that the perforations in the bone at this part were of sufficient size to admit of the introduction of the point of the dissecting forceps.

The sinus was almost filled with thick pus, and lined with a layer of organised lymph, such as we see forming the cyst of a vomica. The tunica arachnoides was slightly opaque; the vessels of the pia mater were loaded with blood.

There was a small abscess on the surface of the right hemisphere of the cerebrum, contiguous to the longitudinal sinus; and upon cutting into it, it was found to extend someway into the cerebral substance. There was no distinctly traceable communication between the abscess and the sinus, but many of the veins of the pia mater, at their entrance into the sinus, and also for some distance, were filled with pus, so that it is probable some communication did exist. The left lateral, the inferior longitudinal, and the left inferior petrosal sinus, were quite distended with pus. On the right side the only sinus so filled was the lateral, and a hard portion of lymph had been effused where the sinus makes its turn to get on the temporal bone; this portion of lymph had acted as a plug preventing the pus from extending further. On the left side, the sinus was filled as far as the foramen lacerum basis cranii, and probably the internal jugular vein, but this was not examined. The remainder of the cerebrum was firm, and apparently healthy.

In the left lobe of the cerebellum was a large abscess, the pus in which resembled that in the sinuses, but there was no connexion found between the two. There were several abscesses in the lungs, and a muco-purulent secretion issued from the bronchi; the largest vomica was in the upper lobe of the right lung. An abscess was found in the left kidney. The bowels were contracted so as to appear very small, and there were a few minute ulcers to be observed on the mucous coat of the ileum and colon.

CASE OF DIFFUSE INFLAMMATION OF THE CELLULAR TISSUE OF THE SCALP, FOLLOWING A SLIGHT WOUND.—ERYSIPELAS OF THE SCALP.

The conclusion of this case, the particulars of which were reported in our last Number, p. 671, was as follows: subsequently to the 12th of Dec., and when the patient, although much debilitated, was fast recovering, he was attacked with diarrhœa, which pursued an almost uncontrolled course in spite of various remedial means. A fresh collection of matter took place beneath the scalp, and eventually the man died, on the 1st of Jan., being upwards of six weeks from the receipt of the injury—a very small contused wound.

The body was examined, and we learn from Mr. Solly that matter was found under the tendon of the occipito frontalis, the bone apparently being denuded in some parts, whilst at others the periosteum was readily detached. There was a considerable effusion between the pia mater and arachnoid; the latter membrane being opaque: there was also effusion to some extent in the ventricle.

The lungs were healthy, but the pericardium contained a large quantity of dark bloody serum; the membrane itself was rough, and had a "honey-comb" appearance, being covered with a false membrane. The arch of the aorta was enlarged, and its coats thickened from deposition.

In the abdomen, the mucous membrane of the stomach and bowels was found bearing the marks of chronic inflammation having existed, being red and pulpy. A large portion of the cortical substance of the kidney was converted into fat.

It may be important to remark, that notwithstanding the dissection clearly evinced that inflammation of the pericardium had prevailed to a great degree, yet there were no symptoms during life indicative of the existence of this disease.

THE LANCET.

London, Saturday, February 9, 1828.

Our sketch of the Cock Sparrow at St. Bartholomew's, has been recognised as a very triking likeness by all who have seen and heard the original. Hence, we have been encouraged to pursue our onithological studies, and have just met with a graver bird in the neighbourhood of the MIDDLESEX; its solemn aspect, its outward semblance of wisdom, and inward emptiness, proclaim it to be of the owl species. The broad and elevated forehead of these nocturnal birds, promises, at first view, profound reflection and stores of knowledge; but we are disappointed, when we look deeper, at finding a head principally occupied by empty cells. The specimen we are about to describe, has the external indications of sense; we have not yet been able to ascertain whether the skull is cellular, but the following remarks will convince our readers, that the inside of this large head cannot be filled with brains. Mr. HERBERT MAYO, lecturer, and writer on anatomy and physiology, and surgeon to the Middlesex Hospital, has just furnished us with the means of accurately gauging his intellectual capacity, and has consigned his laborious effort to a most appropriate receptacle, the hollow excrescence of the Old Hack. It fully shows that he is fit to be one of the BAT CLUB, and likely to prove a valuable member of such an association.

The patient in whom the common carotid artery was tied by Mr. WARDROP, for a pulsating tumour on the side of the head, (as reported in our last Number,) has just died under the care of Mr. Mayo, who seems to have bestowed his utmost pains and skill in examining the seat of disease after death, as we may infer from his having employed two wood-cut representations in aid of his description. He has shown himself utterly incompetent to the simple task of investigating and describing the morbid appearances; and he has produced an imperfect, confused, and ill-written statement, that would have disgraced a pupil, and proves that the various interesting points of the case, although most obvious, had entirely escaped his observation and comprehension. This patient, a young man of 22, had a soft pulsating tumour on the side of the head, apparently consisting (as we have stated in the report of this case, No. 212) of a remarkable dilatation of the temporal artery. A Mr. Babington had tied the trunk of this vessel, in front of the ear, but without any effect on the swelling. The common carotid was afterwards tied by Mr. Wardrop, and this operation was nearly as ineffectual as the former. A severe attack of fever after the operation, required large bleedings, and other lowering treatment. In the course of this indisposition, the eye of the operated side inflamed, the lids swelled and closed, the cornea sloughed, and the humours were discharged. He subsequently left Panton Square for the benefit of country air, in somewhat improved condition. In the beginning of January the patient returned to London, and was admitted into the Middlesex, having lumbar abscess and hectic. A severe affection of the head came on in about a fortnight, and quickly proved fatal.

During the fifteen days that elapsed between the patient's admission and his fatal seizure, Mr. Mayo might have managed to learn what had occurred in this very interesting case, since the patient left Panton Square; he probably made no inquiry, at least he is perfectly silent on the subject. Still we should have expected that he would accurately note the condition, both of local and general symptoms, on the patient's admission under his own care; this he has wholly neglected. He has not even taken the trouble to describe particularly the attack which destroyed life, although previous occurrences rendered this part of the history peculiarly interesting. He says merely, that the patient was delirious, and could not void his urine; that he lay on his face during the last twenty-four hours, and "was capable, however, of turning himself towards one side, being extremely feeble, but *retaining, seemingly with sensation,* some power over his muscular frame." We suppose that the part in italics is a specimen of Bat phraseology, and should be obliged to any one who would translate it for us into common language.

Although the history of the case is so totally neglected, we still hoped that a teacher of anatomy, and an author, would conduct the *dissection* properly; but here again we were disappointed. He did, indeed, find out that the tumour was a dilated artery, but he does not specify whether the coats of the vessel were natural or diseased, whether they were distinct and separable from each other, or whether the tube contained any coagulum. Under these circumstances it could not be expected that he should take the trouble of examining the other arteries of the scalp, the trunk or ramifications of the carotid, the other parts of the arterial system, or the veins. Accordingly, this enlightened pathologist does not say a word on those subjects; nor does he advert to the state of the temporal artery, which was said to have been tied by Mr. Babington.

In describing the condition of the carotid, Mr. Mayo continues to show his ignorance of the changes which occur in an artery after it has been tied. The tube had been obliterated, and its coats consolidated for two or three inches, so that the pervious ends of the vessel were found distant from each other. He actually calls these "the retracted parts of the artery," which, he says, were united by "a thin cord of membrane." As the internal jugular vein was obliterated, and its ends were separated as widely as those of the artery, he would of course entertain the same view respecting them. Since he has written on physiology, he should have favoured us with his ideas as to the mechanism by which this extensive retraction of arteries and veins is effected.

The loss of the eye was a most singular and unaccountable circumstance in this case, and it remains as mysterious as before the examination. Our professor was so satisfied with a crude speculation of his own on this subject, that he did not, according to the report, even examine the contents of the orbit! He fancies that the obliteration of the jugular vein would account for swelling, inflammation, and bursting of the globe. Nothing is more common than examples of obliterated veins in all parts of the body: the inferior cava even has often been found blocked up. Yet in no instance have these changes been attended by any thing like such an event as the loss of the eye in this case. The venous channels in the neck are so numerous, large, and freely communicating, that the stoppage of any one is of little or no consequence. But why did not this anatomist and physiologist examine the veins in the orbit? Why did he not ascertain whether they afforded any proofs of obstructed circulation? Why did he not examine the other parts, which must have suffered from this cause equally with the eye? Why did he not endeavour to find out whether any evidences of venous fulness had existed during life? Such investigations would have been much more to the purpose, than the relation of a case in which the eye protruded, in consequence of a blow on the nose.

When this case was the subject of discussion at the Westminster Medical Society, Dr. Negri observed, that the loss of the eye took place in the same manner as described by Magendie, after injury to the fifth pair of nerves in animals. Professor Mayo, who has publshed on the anatomy and physiology of the nervous system, might have been expected to examine the nerves of the orbit, to trace them to the basis of the brain, and to ascertain whether all these parts were sound or otherwise. But his head was too full of the obstructed jugular to allow of his doing this, or even describing particularly the morbid appearances in the brain, which were serious and extensive, involving the tractus optici, besides other parts. Of these important changes, he gives merely a general statement, sufficient to make us regret that this interesting case was not examined by one who would have patiently inquired into, and reported the facts, instead of obtruding his own silly speculations.

The unusual mildness of the season has ended the winter sleep of the Bats, at this early period, and they are now, with the Owls, and other kindred creatures of night, in full activity. We shall soon be able to measure the intellectual stature of each individual, by the unerring standard of his own productions; and we will take care that their works shall be turned to the best account for the instruction of the public. Ere long, we hope to have a complete series of zoological portraits, to include the entire family. In the mean time, this example of Professor Mayo's anatomical and pathological accuracy is safely deposited in our cabinet of curiosities, together with the interesting specimens we have already collected to illustrate the surgical genius, the reasoning, and the literary composition of an Earle, the therapeutics and ethics of a Keate, not forgetting proper samples of the plain milk and water without sugar, and quite cold, of the "old hack" Roderick.

SCOTCH LATINITY.

Poor Dr. James Johnson, in his remarks on Mr. Wardrop's case, repeatedly talks of tying the artery *citra* ANEURISMAM! This blunder is almost as ludicrous as that of a barrister, who nearly brought the late Lord Ellenborough to a premature end, by moving, in the Court of King's Bench, for two MANDAMI. We understand Dr. James Johnson himself says, there is a fatality attending all his quotations. The printers, quoth he, are incorrigible! There is no fatality in the case, James; it is ignorance, sheer ignorance; and if thou attemptest, in the instance we have just cited, to lay the blame at the door of the printer, thou attemptest not only to commit a fraud upon thy readers, but to prove a mechanical impossibility. Thy Latin, like thy medical diploma, savoureth of Aberdeen; and if it cost thee half a crown, it was, like King Stephen's breeches, "all too dear."

In the press, and shortly to be published, an Amæbæan Eclogue between Roderick Macleod and M. Tonson. M. Tonson has the first fire; Roderick charges, as usual, with *pilulæ è micâ panis.*

SIR A. COOPER AND JOE BURNS.

When Sir A. Cooper, said a friend of ours to Joe Burns, talked of "the reptile press," the worthy baronet must have had good grounds for using such a phrase, though the metaphor certainly imputes an incredible degree of obsequiousness. I wonder, Joe, what possible portion of the press could have crouched to the intellectual ascendancy of Sir A. Cooper? "You don't catch the idea," said Joe; "the truth is, the press had almost ceased to notice Sir Astley; the worthy baronet looked in vain for the sweetmeats which had spoiled his digestion, and the only press that really troubled him, was *a press of other matter.*" Our friend, of course, died upon the spot.

The Hunterian Oration is to be delivered by Sir W. Blizard on Thursday next, Feb. 14, at *half past three* P.M. The Orator requests that Members will come without their hats.

A general View of the present State of Lunatics, and Lunatic Asylums, in Great Britain and Ireland, and in some other Kingdoms. By Sir ANDREW HALLIDAY, M.D. and K.H., &c. pp. 101. London. Underwoods.

WE have watched with considerable solicitude the recent publications on insanity, in order to ascertain if this subject has advanced with a more rapid step, under the boasted progression of modern times, generally denominated the march of intellect. The author of this volume, although neither the keeper of a madhouse, nor a practitioner in this branch of the profession, has been labouring on this barren soil, for twenty-five years; and, in 1806, at an early period of his investigations, favoured the world with the dawnings of his career, by a letter to Lord H. Petty, under the signature of "Medicus," the paternity of which he now claims. This important document we have not seen; nor has Sir Andrew, throughout the present work, made any reference to its precious contents. At starting, under the title of Introductory Remarks, we find it asserted, that "a great deal remains to be ascertained of the true nature of insanity." This we believe; but the concluding part of the sentence is not so easily reconciled; that "experience has, at length, taught us all that is essentially necessary for its treatment." When connected propositions, that were intended for mutual support, evidently contradict each other, the logic becomes questionable, and a few extracts of this nature will fully illustrate our meaning.

In the next paragraph he states, that "the anatomist sought in vain for some visible derangement of structure, or a diseased state of the parts, in many cases where it was perfectly ascertained that death had ensued from insanity;" and, at the end of the paragraph, we find the following consolatory remarks:—

> "Happily for those affected with this disease, a sounder philosophy, and more accurate observation, have removed much of the *mystification* that obscured the inquiry. Truth has taken place of fiction, and madness is found to proceed, in all cases, from some real *tangible* bodily ailment. It can now be treated according to the known rules of practice, made amenable to the ordinary discipline of the apothecary's shop, and is often more easily removed than less important diseases, that have made a temporary lodgment in the human frame."

Notwithstanding the true nature of insanity was, at the commencement, supposed to be involved in mysterious darkness, yet these clouds soon disperse, and we become dazzled with the intensity of light, as appears in page 5. "The proximate cause, or, in fact, the disease itself, will always be found to arise from a deranged or diseased state of structure of the brain;" and this is followed up by an inference equally queer and comfortable:—

> "If the physician could *always* discover the cause of such disorder or derangement of structure, he would be certain of curing his patient, *provided that cause was removeable*, as it generally is, when the case is recent, and the individual properly treated."

The principal object in the treatment of insanity, is its cure; and it is a natural expectation, after the proximate cause has been so peremptorily developed, that the methodus medendi would be perspicuously detailed: but this curative process is no where described, and when obscurely alluded to, it propagates a doctrine unfavourable to all lunatic asylums whatever, and renders the projected crazy castle for the county of Middlesex altogether superfluous; as, according to Sir Andrew, the patient would have a better chance of recovery at home.

> "Through an unaccountable weakness in human nature, aided, I fear, by the representations of *interested knaves*, a feeling has hitherto obtained among all classes of society, that a something disgraceful, nay, almost amounting to criminality, became attached to the person, and even to the family, of an unhappy lunatic. The attack of the disease was, therefore, no sooner confirmed, than he was put under the charge of

some *heartless hireling*, and hurried off to a place of concealment, where it became the *interest of his keeper to have his disease made permanent*. This, by seclusion or cruelty, was soon effected; when by proper treatment, and a few soothing attentions in the bosom of his own family, it was more than probable he would speedily have recovered."

This is sufficiently uncharitable; but as the sweeping spirit of obloquy and virulence increases as we proceed, *vires acquirit eundo*, we shall exhibit some further specimens, and quietly pass on to the first section, which contains Sir Andrew's account of the present state of lunatics and lunatic asylums in England; and the total amount, which is of no great importance, is estimated at 4782, "who are known to be in existence, and publicly accounted for according to law;" and we are not very sanguine in our expectations, that the numbers will be diminished by any of the lucubrations of Sir Andrew. In addition to these is a considerable but uncertain number, who reside with their friends, or in lodgings, attended by keepers, and who are not registered. The author, as will be subsequently seen, is extremely restless and discontented, that these ladies and gentlemen are not exposed and disturbed to the interruption of their cure, by the frequent intrusion of meddling and ignorant persons, when they are actually under the care and direction of regular physicians.

It would be a waste of time to enumerate the different public establishments that have been blindly eulogised, or unjustly vituperated by Sir Andrew; but we cannot refrain from a citation or two relative to Bedlam and St. Luke's Hospitals, and these will be sources of extreme gratification to their governors and medical officers.

"Bedlam, the great national and metropolitan asylum, is now well conducted, and the patients are humanely and judiciously treated:" so far, so good; "but it has still too much of the leaven of the dark ages in its constitution, and too rigid a system of QUACKERY is maintained, in regard to its being seen and visited by respectable strangers, and there is too little space for exercise and employment, for it ever to prove an efficient hospital. In some respects, it is little better than when, in fact, it formed one of the *lions* of the metropolis, and the patients, as wild beasts, were shown at sixpence for each person admitted."

This observation very completely develops the reasoning powers, and querulous inanity of Sir Andrew. Formerly, the hospital was thrown open for general inspection, according to his present wishes; but such introduction of visitors, after more than a century of experience, was found to interrupt the cure of the patients, and to expose them to the insult and derision of vulgar spectators. This has been properly corrected, and the present writer on lunatic asylums now complains, that the same evil is no longer in existence. "St. Luke's, the next in importance to Bedlam, is only fit to become a prison for confirmed idiots. It is worse than useless as an hospital for curable lunatics."

In the course of this lunatic survey, we are conducted through the asylums of Scotland, which are generally condemned, and of Ireland, on which the highest panegyrics are bestowed: we then cross over to the Continent, and, omitting a tedious detail of the French institutions, arrive at Hanover, the dominions of our beloved Sovereign, and of which his brother, the duke of Cambridge, is the Governor. Here we must pause, in order to allow the author sufficient time "to blot out from his memory altogether his recollections of Hanover." In this attempt there will be some difficulty, especially as Sir Andrew has published the "Annals of the House of Hanover," a work of exquisite research, and antiquarian dulness. The following extracted passage, speaking of Hanover, is but little complimentary to the benevolence and wisdom of its illustrious Governor:—

"Here, as I have already remarked, the madman and the ideot, are shut up with the thief and the murderer. All the wretches whose crimes have deserved a punishment short of death, and all the condemned, whose sentences have been commuted by royal mercy to perpetual imprisonment, are lodged together. And within the walls of the establishment at Celle may be found every gradation of human wickedness and of human infirmity, with only this difference, (for I will speak the truth,) that the depraved and criminal part of its inmates are treated with some kindness and attention, while the diseased and afflicted are left in utter wretchedness and neglect."

Of this defamatory tirade there is a protracted sequel, with which it is useless to fatigue the reader; but we will now duly examine the subjects of his extravagant commendation.

By some strange obliquity of thought and perversion of judgment, Sir Andrew is enamoured of an institution at Gheil, in the Netherlands, and which appears to him the beau ideal of lunatic establishments. Gheil situated in the centre of a large uncultivated heath, and some existing legend narrates that

- - - - "A certain English lady, of high rank and surpassing beauty, when driven to madness by the treachery of a lover, and the cruelty of her friends, wandered from home, and from her country, and found refuge in this deserted spot; where she recovered her reason, built a church, and devoted a long life to curing the insane, *having received from heaven* the power of performing such cures. *Her remains*, which are preserved with great piety, are supposed still to possess that power. Her coffin, therefore, is placed in the church which she built, raised upon pillars about three feet in height. Every patient, on his arrival, is kept *secluded* for *nine* days; (this is probably the origin of a *nine* days wonder; but what would Mr. Gordon's committee have said to Old Warburton for a similar incarceration?) and at a certain hour on each of these days, *made* to pass under the coffin of the saint, and repeat a prayer for her intefeference in his behalf. Many cures are effected in the short space of these nine days, all of which go to the credit of the holy St. Dymph, of Gheil."

This tissue of improbabilities finds a ready nidus in the easy faith of Sir Andrew, and he hatches the following conclusion: "But let the merit rest where it may, *certain it is*, that more patients are cured at this village, than in all the hospitals of the kingdom put together." Now the whole history of the miraculous village of Gheil, translated into intelligible English, amounts to this, that certain lunatics, idle fellows, and sturdy beggars, were consigned over to the peasants at Gheil, who *compelled* them to cultivate the waste lands that surround the village. What were the means employed to *coerce* them to labour, we are not informed, nor is it, perhaps, fit to be communicated; but in the following paragraph we find it detailed, that "each patient is *obliged* to labour for a certain number of hours in the day, according to his strength, and when not employed, he is allowed to walk about without any restraint, and they are summoned to their homes by the bell of the village church. *Scarcely* any accident occurs, and very few ever attempt to make their escape. After having been dragooned to work for so many hours, these operative lunatics will hardly have sufficient strength remaining to perambulate for amusement, and still less to run away. In corroboration of the efficacy of this practice, we observe in page 80, "that among the slaves in the West Indies, insanity very rarely occurs;" so that it becomes a fair inference that hard labour, urged, *quocunque modo*, by persuasion or flogging, is not only a preventive, but a cure of madness, in its various presentations; yet in turning to the Appendix, page 87, which contains the proposed legislative enactments, we observe in Law 16th, "That no convalescent patient shall be employed about the persons of other patients."

It is worthy of notice, in the contemplated arrangements for a new act of Parliament, to regulate the insane mass of the British population, that the jurisdiction which the College of Physicians has so long exercised, is to be wholly superseded, notwithstanding the author has affirmed insanity to be a tangible bodily ailment, resulting from addled brains. On this point, however, divers philosophers have entertained very opposite opinions. Mr. Abernethy considers the stomach to be the seat of this disease; and Dr. Wier, late a commissioner of the Transport Board, sagaciously attributes it to an acrimony of the blood. In spite of all this, the brethren of Pall Mall are to be entirely set aside: yet, of this body, Sir Andrew is a meritorious licentiate, and on his bended marrow bones must have plighted his troth to the existing Dagon or Baal for his admission; and by such supple genuflection, have compromised his adhesion to their municipal regulations. This projected bill is, however, to be propped up by doctors of some sort; probably imported from those seats of classic lore, and exuberant science, the universities of Aberdeen and St. Andrew's. Three of these medici nothi, with two magistrates, are to form a board of general control, but police magistrates (the most intelligent and efficient of this tribe) are to be excluded. In this proposed legislative whirligig, the principal secretary of state for the Home Department is to be the head-keeper, and by his deputation, the intrusive spirit of official authority is to penetrate into the recesses of every private family. There are many cases where domestic calamity, the termination of fever, the suppression of periodical secretions, puerperal irritation, sudden alarm impressed on a system highly sensitive, together with many other exciting causes, that might render the separation of the patient from his family, with an adequate guardian, in the house of a relative or friend, expedient and highly beneficial. In such instances is the posse comitatus of the Board of General Control, consisting of three unlicensed *soi disans* physicians, recently landed from a northern steamer, with two peeping and loquacious dunces of the quorum, to intrude with their unfledged advice and brutal authority, into the private abodes of the kindest and most affectionate of relatives.

There are many other subjects in Sir Andrew Halliday's volume, which might have been unfavourably noticed; but we forbear to misapply argument, or to point ridicule at imbecility.

Circle of the Seasons, &c. 12mo. Hookham, Bond-street; 1828.

This little work may be regarded as a compendium of the natural history of every day in the year; which also comprises the *artificial*, as well as the *natural* history of each day. Each page in the book describes one day, and it is divided into three portions; 1st, The calendarian history of the day, including the ceremonies observed in each; 2d, The natural history, including a list of plants which blow, birds which arrive, fruits in season, and prevailing diseases of each season. This part is supplied by Dr. Forster, of Chelmsford. 3d, The last part is made up of poetry, relating to plants, and quotations from the Greek and Latin authors, as Virgil, Dioscorides, and others. The whole forms a portable pocket volume for the student of natural history.

"ROYAL COLLEGE OF SURGEONS IN LONDON.

Regulations of the Council relating to the Age and Professional Education of Candidates for the Diploma of the College.

I. The only schools of anatomy, and physiology, recognized, are *London*, *Dublin*. *Edinburgh*, *Glasgow*, and *Aberdeen*.

II. Attendance upon the surgical practice of an Hospital will be recognized, provided such Hospital contain at least one hundred patients.

III. No person under twenty-two years of age shall be admitted a member of the college.

IV. The following certificates will be required of candidates for the diploma of this college:

1. Of having been engaged six years, at least, in the acquisition of professional knowledge:
2. Of having regularly attended three or more winter-courses of anatomy and physiology; and two or more winter-courses of dissections and de-

monstrations; delivered at subsequent periods.

Two courses of anatomy and physiology in Edinburgh or Dublin, which are of six month's duration, and the accompanying courses of dissections and demonstrations will be considered as equivalent to the foregoing attendance.

3. Of having regularly attended two or more courses of lectures on the principles and practice of surgery; one of which shall have been delivered in a recognized school of anatomy.

4. Of having also attended the following lectures, viz.

Two courses on the theory and practice of physic of three months each, or one of six months.

One course on materia medica, and botany.

Two courses on chemistry, of three months each, or one of six months.

Two courses on midwifery, of three months each, or one of six months.

5. And of having attended, during the term of at least one year, the surgical practice of one or more of the following Hospitals; viz. St. Bartholomew's, St. Thomas', the Westminster, Guy's, St. George's, the London, and the Middlesex, in London: the Richmond, Steven's, and the Meath, in Dublin; and the Royal Infirmaries, in Edinburgh, Glasgow, and Aberdeen; or during four years the surgical practice of a recognized provincial Hospital, and six months, at least, the practice of one of the above named Hospitals in the schools of anatomy.

V. Candidates under the following circumstances, of the required age, and who have been engaged five years in the acquisition of professional knowledge, will be admissible to examination, viz.

Members, or licentiates in surgery, of any of the legally constituted colleges of surgeons in the united kingdom.

And graduates in medicine of any of the universities in the united kingdom, provided they have attended lectures, the practice of an Hospital, and performed dissections, as required in regulation IV.

VI. The required certificates shall express the dates of the commencement and of the termination of attendance on each course of lectures, and dissections; and also of attendance on hospital-practice.

VII. The required certificates shall be delivered at the college ten days before candidates can be admitted to examination.

By order,
Edmund Belfour, Secretary.
5th day of January."

We have neither time nor temper to dissect these new regulations this week. But we would ask, when will the impudence and folly of these jacks in office have an end? Do they suppose that the patience of the members has no limits?

SINGULAR CASE IN MIDWIFERY.

By Dr. Hare, Great Baddow, Essex.

I beg to transmit the following midwifery case for insertion in your widely-extended publication, as the most effectual means of rescuing it from oblivion, which I feel it does not merit, being the only one of the kind upon record.

When I resided at Southminster, Sarah Maynard, of the adjoining parish of Burnham, came to engage me to attend her in her approaching confinement; this was in the autumn of 1789. She was about twenty-eight years of age; a short, thin, delicate woman.

I arrived a few hours after she was taken in labour, on the 10th of November; the pains were strong and regular, with much bearing down. I had her laid on her left side, in order that I might examine and judge of her situation. I found the uterus low down in the pelvis, close to the os externum. I hoped the labour would soon be over, should the os uteri dilate; I endeavoured to find it in every direction, first backward towards the anus, then all round the pelvis, without being able to make any thing out. I could find no entrance into the vagina, nor could I introduce my finger horizontally between the perinæum and uterus, which I had never failed to do in all other cases, however low the presenting body might be. I felt convinced, during the last examination, that the uterus adhered all round the pelvis, and that the vagina was totally obliterated. It was about eight o'clock on Wednesday evening when I came to her, and by the time I had satisfied myself of these extraordinary particulars, the night was pretty far spent. I proposed to lie down for an hour or two, more with a view of reflecting upon the case without interruption, than with any intention of going to sleep. Her pains coming on stronger, attended with severe sickness, I was soon called up again. I amused the woman as long as I could, by wishing her to walk about a little, and when her patience was pretty well exhausted, I made another examination, with no better success. I thought I discovered the os tincæ, but it turned out to be only a furrow, or plica of the uterus. The action of the pains upon the uterus was intercepted and lost by its adhesion round the pelvis, for the presenting body never varied its position, which I had every reason to suppose was the head of the child, so far as I could judge by the feel through the uterus, not being able to find any entrance. I represented to the woman's friends the extreme danger and singularity of the case; that, for the satisfaction of all parties, and to avoid censure, I wished for a consultation. Dr. Paxton, of Maldon, and my brother, were fixed on. We met on Thursday evening. I represented the state of the case to them, and they found every thing as already mentioned. Her pains were still strong and regular; constant sickness and vomiting; complained much of violent pain in the abdomen, which made me fearful of rupture of the uterus, as the resistance at the outlet was so great.

Upon mature deliberation, we concluded little could be attempted with any prospect of success. Nothing suggested itself except the Cæsarian operation, at any time formidable, but under present circumstances not justifiable, on account of the appearance of uterine and peritoneal inflammation coming on.

She had opiates administered from time to time to alleviate her sufferings. We questioned the husband whether he had found any impediment or obstruction in his intercourse with his wife; he declared, no longer than about two or three months, when she complained of pain. When she spoke to me to attend her, she informed me she had lain in of her first child about eight years before; that she had a very bad time, and was attended by two surgeons.

Being desirous of gaining every information that could throw any light on this mysterious case, I wrote a note to Mr. Passel, one of the surgeons whose patient she had been, (the other gentleman being dead,) requesting him to inform me of all or any of the particulars of her former labour that he could recollect, as her present situation was a most extraordinary one.

He politely returned me an immediate answer.—"That from his memorandum of the case the presentation was a natural one; but the death of the child not being ascertained at first, and the pains being very violent, with extreme rigidness of the os internum, rest was procured her by the assistance of opium twice. After the use of clysters, and in about three days, nature perfected the business without any help, he having left the house about two hours before, and the other gentleman being down stairs at breakfast."

It will be seen in the sequel the great importance of this communication. On Friday morning we found she passed a very bad night; the pains continued without abatement; extremely anxious; up and down, not bearing to be confined to one posture; the countenance wild; pulse small, hard, and quick. During the pains there was a good deal of discharge from the uterus, of a thin, whitish fluid, which we could not account for; the abdomen distended, painful, and tender, not bearing to be touched. Saturday morning, slightly delirious; pulse weak and low; coldness of the extremities. She died about eight o'clock in the evening, after seventy-two hours of great suffering. The pains ceased some hours before her death, but restless to the last, as she was walking about the house a few minutes before her death.

We had great difficulty in procuring a post-mortem examination. Upon opening the cavity of the abdomen some fœtid air escaped, and it contained a considerable quantity of thin whitish matter, exactly similar in appearance to what had been discharged from the uterus during the last stage of the labour. The intestines, viscera, peritoneum, and uterus, were covered with a thick layer of coagulable lymph; the uterus filled the whole anterior part of the abdomen and pelvis. Upon making a longitudinal incision into it, it was found to contain a fine full-grown child, the presentation natural, the fœtus standing, as it were, upon its head, and nearly filling the pelvis. There was an opening through the uterus, about four inches long and two wide, opposite the sacrum, evidently caused by its projection; its edges were worn thin, and seemed to be of some standing, produced by the friction of the uterus, as it increased in volume, against the projecting bone. The rectum was turned to one side of the sacrum. This opening, communicating with the abdomen and uterus, satisfactorily accounted for the discharge of the whitish fluid during the last day of the labour, being the pus thrown out into the abdomen from so extensive an inflammation. Upon examining the uterus in situ, we found at the os externum, a small, smooth, round opening through it, barely sufficient to admit the blunt end of a small probe, and from this foramen extended a cicatrix for about two inches, towards the right labium, and was lost in its adhesion to the side of the pelvis. The urethra was in its natural situation; no appearance of vagina; the uterus at the os externum, and adhering to the perinæum and sides of the pelvis; the labia were two inches long, and formed a kind of external cavity.

Had I not procured a history of her former labour, the case, as to how the laceration took place, would have been involved in much obscurity; it can, I feel, be satisfactorily explained, viz., three days in strong labour, extreme rigidness of the os internum, delivered suddenly without any assistance, &c. This could have arisen only from laceration of the uterus during the labour; hence also its consequent adhesions to the perinæum and sides of the pelvis, in consequence of the inflammation and coagulable lymph thrown out during so protracted a case. Whether the gentlemen were aware of what happened, or what sort of recovery she had, does not appear.

In a pathological point of view, I feel this case to be of great importance, and perhaps the most singular of the kind upon record. After so extensive an injury, becoming again impregnated, and sustaining a further extensive opening at its posterior side, from its friction against the os sacrum, all this with apparent impunity, shows the wonderful resources of nature.

It appears not the least singular part of this case, that the only remains of the os tincæ was the foramen already mentioned. Physiologists must decide how far this case is calculated to elucidate that wonderful and mysterious act of Providence—CONCEPTION. The sole mode of impregnation was by this small opening in the uterus; and the only lodgment for the semen was between the labia, the vagina being quite obliterated.

Should there appear any obscurity in the relation of this case, I shall feel happy to afford you or your correspondents any further information in my power, having made too deep an impression on my memory ever to be eradicated, witnessing so much distress and suffering without power to alleviate them.

I have, at some future period, to communicate some extraordinary particulars of a case of retention of urine. Sir Astley Cooper mentions it in No. 13, page 410, of THE LANCET; I am the person there spoken of. A cast of the case is in the Museum of St. Thomas's Hospital.

Great Baddow, Chelmsford, Essex,
1 January, 1828.

SUCCESSFUL CASE OF TRANSFUSION.

By J. Howell, Esq. Bridge Street, Southwark.

THERE has rarely been a more important operation proposed to the profession than that of transfusion, and if on further trials it proves deserving the character it would seem entitled to, it will reflect the highest honour upon Dr. Blundell, and be the means, in the hands of enterprising men, of saving the lives of many of the most interesting part of the creation, who would fall victims to uterine hæmorrhage.

A poor woman, the mother of twelve children, 40 years of age, had a second time engaged me to attend her in her accouchment, which she expected to take place at the beginning of the ensuing month of March. On the 31st ultimo, I was hastily summoned to her, and found, that about half an hour before, without experiencing any pain, whilst quietly occupied with her needle, she had been attacked with one of the most frightful hæmorrhages I had ever seen. She was then flooding most profusely, and had lost, before my arrival, a small chamber-vesselful of blood. I immediately laid her on the bed, and, on examination, found the os uteri sufficiently dilated to admit my finger, and quite free from any connexion with the placenta. I directly ruptured the membranes, the liquor amnii escaped, the uterus contracted, and the hæmorrhage instantly ceased. The pulse was feeble, and she complained of being very faint, a state which I did not think it prudent, of course, to interfere with. I applied cold water to the uterine region, lessened the temperature of the apartment, and adopted all those precautions the serious situation of my patient called for. I remained with her some time, but as the flooding had ceased entirely, and she was free from pain, I left her, charging her friends to keep her cool and quiet, and should any pain come on, or the slightest hæmorrhage, to send for me directly. This was about half past three o'clock P.M., and about six I was sent for, in consequence of labour pains coming on. I found she had but very little pain, and the flooding had returned in a very slight degree, but, before my arrival, had entirely stopped. The os uteri remained rigid and undilated. She was very faint, and the extremities cold; indeed the aspect of the patient was altogether alarming. In this state of prostration of the vital powers, there was not absolute syncope, and the stomach remained undisturbed. As there was no contra-indication, I did not hesitate to administer brandy to the amount of five or six ounces; but although it rallied her for a few minutes whenever she took it, she sunk at last into such a state of collapse, that I apprehended a fatal termination, unless something more were speedily done for her. With these feelings, I requested the advice and assistance of my friend Mr. Ravis, of Union Street; who, after observing the inefficacy of stimulants, and finding the woman cold, excessively cold, with an imperceptible pulse, and supervening insensibility, agreed with me, that nothing but transfusion held out a shadow of hope. Delivery had nothing to do with it: there were no pains; there had been no hæmorrhage since my second visit; therefore delivery could have availed nothing, but would necessarily have induced some loss of blood, and thus, probably, have placed the woman beyond hope. Seeing, then, that nothing but the operation allowed any chance, and knowing that our neighbour, Mr. Doubleday, had acquired some tact in the performance of it, we lost no time in soliciting his assistance, which was granted us with that readiness creditable to Mr. Doubleday, as a man of humanity, and one interested in the improvement of our profession. The woman was now in the most exhausted state, and could be prevailed upon to take only very small quantities of brandy, asserting, when able to articulate, that she was dying. No pulse to be felt; the respiration scarcely to be recognised; the whole body as cold as ice; the very breath cold, and with that high degree of restlessness so characteristic of the last stage of these lamentable cases, it was very evident the patient could not long survive.

A good supply of blood being obtained from the husband, a hearty coal-heaver, the operation was commenced twenty minutes before eight o'clock, and occupied fifty minutes, during which time twelve ounces of blood were cautiously injected. When the first five ounces had been thrown up, the pulse was perceptible at the wrist, and the patient, with increased power, declared she was better, and should do very well. At the conclusion of the operation, the woman was warmer, and continued getting so, taking, from time to time, some brandy and water, and as much warm milk as we could get her to swallow; still the pulse remained indistinct and fluctuating. At about nine o'clock the pains returned, and the os uteri quickly dilating, in about an hour after the transfusion, the patient was delivered of a dead child, the placenta almost immediately following. By carefully kept-up pressure above the pubes, the uterus was made to contract firmly, and very little blood followed the after-birth; yet there was enough to produce a sensible effect on our patient, again inducing the coldness and faintness slightly. Fortunately, however, this was removed by some brandy and water, with a full dose of laudanum, so that an hour after delivery, the woman was tolerably easy, much warmer, and inclined to sleep. We left her with a feeble pulse, but, in other respects, comparatively comfortable; and, with the assistance of another opiate, she passed a tranquil night. It may be mentioned, as showing the extreme condition of the patient before and during the operation, that she was quite insensible to any pain from it. It should be observed, too, that after the first injection, a disposition to nausea, unattended, however, with vomiting, was produced.

Did the transfusion occasion the recurrence of the pain?

It is only necsssary to add that the patient has gone on very well, no untoward symptom having appeared; and she is now in such a satisfactory state, as to leave no doubt of her speedy recovery.

ROYAL INFIRMARY.—DR. CULLEN.

To the Editor of THE LANCET.

> "Man, vain man,
> Drest in a little brief authority."

SIR,—BECAUSE I admire the talents and knowledge of Dr. Cullen, I cannot but regret the inconsistency of his conduct and the defect in his manners. Dr. Cullen being now a public person, is responsible to public opinion; and however unimportant his conduct and manners in a private capacity, when they affect society at large, from being insignificant they may become noxious. Neither 'the antient doctrinal costume;'—the wig—the 'genuine gold-headed cane,' nor "una loqüeta especiosa, sostenida de cierto ayre grave, y al mismo tiempo meloso, junto con algunas afortunadas curas," attracted me to the wards over which the doctor presides; but a very general report of his ungentlemanly conduct towards the resident physician's clerk. If any, therefore, have been drawn into the circle of his auditors, as Scotus supposes, from the expected amenity of his manners, they must have been greatly disappointed; but I am sure that many have been added from the contrary prevalent report, and were astonished at the fact.

Something may be allowed for the intoxication of new authority; but then we must infer a weakness of intellect.

Some excuse may be made for ignorance of the custom; but then we imply an unfitness for the duty.

Some extenuation, perhaps for want of self-knowledge; but then we must charge a proportionate incapacity.

'Knowledge puffeth up,' and from Dr. Cullen's conduct there can be no doubt that he has a great deal of knowledge. A misconception, however, of his own authority, and a forgetfulness of the situation of physician's clerk, (for I believe he was one himself) have begotten this unbecoming and injudicious conduct.

There is a wide difference between medical and military authority; but Dr. Cullen seems to have forgotten that when he buttons on his cane, it is not a sword, and when he adjusts his wig, it is not a cock'd hat. He would be like the Roman centurion, who says to one, 'go, and he goeth,' to another, 'do this, and he doeth it.' But students, apothecaries, nurses, and patients form a very insubordinate regiment; therefore the physician's gravity should not burst into ire, when he says, 'go, and they go not; do this, and they do not.'

But with respect to Dr. Cullen's treatment of the physician's clerk, this is most unbecoming and misapplied; because, from the voluntary origin of his situation, he must be *willing* to perform the duty; and from the nature of his election, he must be capable. If, therefore, amongst duties so multiplied, so many cases, such various medicines, such frequent changes, admissions, and discharges; a pill should roll away, or a bottle be broken, iced water get warm upon the head, or a pimple be overlooked;* are these occasions to convert the gravity of a physician into the passionate gesticulation of a Neapolitan buffoon? Do these things require snapping of the fingers, stamping of the feet, and vituperating Latin! Surely the doctor is not ambitious of being an inimitable master of the vulgar tongue. The doctor does not understand the duty of physician's clerk, but expects him to be an universal genius; to be nurse, apothecary, patient and all! If the nurse has neglected her duty, the clerk is imperatively interrogated, why it is not done?

And if the patient has no stool, it is actually demanded of the clerk! It will appear too that the criticism of Dr. Cullen is open to the charge of inconsistency and frivolity. The expression, "tolerable sleep," had been used by the clerk, which the doctor thought fit to sneer at as quite "unmeaning and unintelligible;" but in the very same ward he ordered to be written, "pretty good sleep:" now, I think, Sir, it would be difficult to discover any superiority of intelligence in the latter expression, or if the former be unmeaning, the latter must surely be a little silly. The same day Dr. Cullen recorded "a *very sluggish* eye," which, I think, is as intelligible as a *very blackish* wig, or a *very smartist* gold-headed cane. But he has the authority, and privilegium non transit in exemplum. The duty of physician's clerk is to copy in a book, kept for that purpose, the report of the attendant physician and his prescription. To take a sketch of the cases on their first admittance, and to administer any medical aid in the absence of the physician, if necessity require his interference. If the apothecary neglect the medicines, or the nurse her duty, the clerk has no authority to abuse the one or frighten the other; much less then has the clerk to do with the housekeeper (rara avis in terris!) Will it be credited then, that upon an omission on the part of the clerk to be the bearer of a footman's message to the housekeeper, a message too that was in itself of doubtful propriety, Dr. Cullen said, "I insist upon its being done, I command it to be done," with a voice and a gesture too that shook the very foundation of his wig!

Such an assumption of authority as this, Sir, and such amenity of manner, is ill calculated to be of use to students, clerk or patients. It is indecorous and detrimental to the service of the Infirmary. Such 'insisting and commanding' has a natural effect in producing forgetfulness, and were I Dr. Cullen's clerk, I should propose the insertion of every thing in the Journal, the omission of which would be likely to discompose him. I cannot conclude these observations without expressing my high opinion of Dr. Cullen's information and talents; my persuasion that the clerk is too sensible not to value the opportunity he may have of profiting by them; and having been Dr. Graham's clinical clerk, he must be able also to appreciate the manners of a gentleman, and know into what an amiable light they throw the highest learning and talents.

G. W. N.

Edinburgh, Jan. 1828.

EXTIRPATION OF THE NECK OF THE UTERUS.

To the Editor of THE LANCET.

SIR,—In the last Number of the Excrescence, is a very shallow and superficial article on Affections of the Neck of the Womb, alleged to be written by a correspondent in Paris, (certainly not one of Radcliffe's travelling fellows,) at the conclusion of which, the Editor indulges in the following remarks:—

"Last September, Mr. Lewis, of Bath, published an account of an operation of this kind (excision of the cervix uteri), which he had performed, and promised a further account of its ultimate result: this promise he has never fulfilled: we have been ever anxiously looking for the termination of the narrative, but in vain. What is the cause of this silence? Whatever may have been the sequel of the case, it ought to be made known. Mr. Lewis is bound, in justice to the profession to which he belongs, as well as by the promise which he has made, not to withhold this important piece of information," &c. &c.

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* "Qué voces! qué patadas! qué gestos! qué contorsiones! qué espumarajos en las bocas! Mas pareciamos energumenos que filosofos."

Now, Sir, one very satisfactory "piece of information" is, at least, to be obtained from these remarks; viz., that the Editor of the Excrescence is not one of those "who disdain to read the pages of The Lancet;" nay, he accurately *remembers* what he *does so read*—the dates of the various articles, and the engagements of the writers!

But, Sir, what is the interpretation of all this? this *cackling* of the "*grey goose,*" who is to save the Capitol? What is it, but the whining supplications of the Literary Mendicant? "Pray bestow your charity on a poor infirm Editor; the smallest donation will be thankfully received!—Alas!

"*Non sum qualis eram!*"

And, what is worse, *every body perceives it*—even the little dirty wretch, the printer's devil, who has been stationed at my chamber-door for the last half hour, waiting for a corrected proof; even *he* I detected but a few moments since, eyeing me askance, with evident symptoms of compassion! and, as to the man in The Lancet, he shakes his head at me, and exclaims, with the most insulting laugh,

"*Oh! Bottom, thou art translated!*"

Verily, Roderick, thou art *indeed* translated!—from "the last of the Goths" to a mere infant; and in this, thy state of second childishness, preservest the imbecility of childhood, without its freshness and originality: alive among the dead, and dead among the living, the *process of thy renovation* has doubtless been *interfered with*, like that of *Virgilius;* and we now behold nought of thee, but the figure of a little naked child, running confusedly about, and crying in despair to thy *Poetical Accoucheur*, "cursed be the day ye ever came here! cursed be the day ye ever came here!"* Of what avail is it, that *Apollo* himself condescended to *preface* thy infantile labours? the very *form* of his *incarnation* ought to have awakened a sense of thy situation.

I have now, Mr. Editor, said enough, and more than enough, to convince that very important personage, my assuming querist, that timidity, forms no part of my character; and that, if I have hitherto postponed the fulfilment of my engagement with *you*, and tacitly with the profession, the delay has not arisen from dread or apprehension of the argumentative powers, or critical acumen, of the *soi-disant* organ of the profession; the would-be *fugleman* to the Medical Journalists. No, Sir,

"*Non tali auxilio, nec defensoribus istis, tempus*
eget."

I am, nevertheless, concerned at his situation, and in the present deplorable dearth of original articles, recommend him to turn to the last Noctes in Blackwood, and oblige his readers (for the first time in nine weeks) with a specimen of real talent, by transferring to the pages of the *Medico-Poetical* Gazette, a vivid and most faithful description, by the Ettrick Shepherd, of the symptoms of tic douloureux, angina pectoris, and jaundice; and, if the readers of the Gazette do not feel *grateful* for this change in their diet, they must indeed be *far gone*, and are only fit to be fed with *musty extracts from wills*, and *epigrams without point*. In conclusion, Sir, I have to remark, that, as the first part of the case of carcinomatous uterus, before alluded to, appeared in your highly useful and spirited Journal, the ulterior account of the same shall be given to the profession through the same medium.

I am, Sir,
Your most obedient Servant,
Duncan E. Lewis.
Bath, Feb. 5th, 1828.

SUPPOSED MURDER OF ANN CROTCHLEY.

To the Editor of The Lancet.

Sir,—In reply to your request in last week's Lancet, allow me to observe, that I shall feel great satisfaction if the subsequent communication may be found to throw the least light on the murder of Ann Crotchley. In this mysterious transaction, it is the more necessary to give any additional elucidation, since so many absurd reports have gone abroad relative to the supposed instrument which inflicted the injury. That we should seek for an explanation in some accidental cause, rather than believe in so monstrous an outrage, is quite natural; and the jury on the inquest, impressed with the same feeling, were extremely anxious to ascertain the fact, whether the unfortunate woman was in any situation where there was a possibility of receiving wounds. The result of that inquiry is well known.

Yesterday I made the accompanying drawing. The parts having been removed by sawing through the ramus ischii and pubis, taking the whole of the organs of generation, rectum, &c. Should you or any of your friends visit Oxford, the accuracy of the delineation may be proved by referring to the preparation in the school of anatomy. From a simple inspection of the drawing, I have no doubt but you will be convinced that it was scarcely possible for Mr. Dickeson or myself to mistake so evident and remarkable an injury, and it may be inferred how unnecessary was exhumation.

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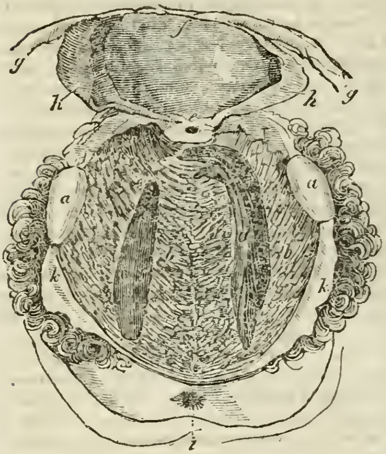
* Vide Scott's Vision of Don Roderick. Notes in Appendix.

I am, Sir,
Your most obedient servant,
James Paxton.
Oxford, 24th Jan. 1828.



Explanation of the Figure.

The vagina is laid open.

a, *a*, The symphysis pubis divided.

b, *b*, *b*, Rugæ of the vagina.

c, The wound on the right side, terminating at the rectum in a cul de sac.

d, The wound on the left side, lacerated at its posterior extremity; here was considerable effusion of blood and serum.

e, Os uteri.

f, Fundus ejusdem.

g, *g*, Parts of the fallopian tubes.

h, *h*, The bladder divided.

i, Anus.

k, *k*, Internal labia.

On warm water being injected through the internal illiac artery, it was found to flow freely through the wounds.

We feel greatly obliged to Mr. Paxton for this communication; but, at the same time, must express regret that it still leaves the cause of the unfortunate woman's death, apparently involved in impenetrable darkness. It was stated by the medical witnesses, that she died in consequence of a most extensive *hamorrhage* from the wounds represented in the above sketch; yet in the evidence of Mrs. Cox, the landlady of the deceased, we find that LEECHES were applied by Mr. Dickeson on the day following the infliction of the injury.

Previously to making any further remarks on this case, we should like to know what *number* of leeches were employed, and the part to which they were applied.

EXTRAORDINARY EARLINESS OF THE SEASON.

To the Editor of The Lancet.

Sir,—The following proofs of the very remarkable earliness of the present mild season, will, no doubt, interest many of your numerous botanical readers, as this science is now very generally cultivated among physicians. We have passed a whole January without a frost of three days' continuance, and the mean temperature of the month has exceeded the average temperature of January and February put together of any former year in my memory. On the 15th, the well known harbinger of spring, the flower of St. Paul (helleborus hyemalis) was in bloom, and several snowdrops speedily followed. On the 25th of January, which is the *dies indicatoria* of the old calendars, the following plants were in flower, all of them (except the three first) above a fortnight, and most of them a month before their average time of blowing, in my garden:—

Tussilago fragrans, full flower
Tussilago alba, just flower
Helleborus niger, still flower
Viburnum tinus, full flower
Primula vulgaris
Primula polyantha veris
Galanthus nivalis, in plenty
Crocus mæsiacus
Crocus biflorus
Crocus Susianus
Anemone hortensis, many sorts
Anemone hepatica, many sorts
Alyssum album præcox
Alyssum saxatile
Calendula officinalis
Matthiola incana rubra
Draba verna
Viola odorata
Corchorus japonicus
Pyrus japonica.

To the above list, extraordinary as it is, many more insignificant wild flowers might be added, as the daisy, (bellis perennis,) the dandelion, (leontodon taraxacum,) the archangel, (lamium purpureum,) groundsel, and some others. These botanical facts are worthy of record, particularly as the plants in question are not scantily, but full and luxuriantly in flower. My intention is to keep a calendar of the whole year, and, when my professional engagements will permit, to note down the phenomena of this extraordinary season, which, if you should think worthy, may fill some unoccupied corner of your useful and widely-circulated publication.

While on the subject of the season, I may observe, that intermittents have been rather numerous this winter, and are so still, in some places; but, what is very remarkable, they subsided in some cases spontaneously on the occurrence of the late N.W. wind.

Yours, &c.
T. Forster.

WESTMINSTER MEDICAL SOCIETY.

February 2, 1828.

Mr. Arnott in the Chair.

This evening, Mr. Barrett Marshall read an "Essay on Wounds, in relation to Medical Jurisprudence." The division (confessedly arbitrary) adopted in considering the subject was that of Dr. Beck, in his excellent treatise on Forensic Medicine,—namely, *mortal*, *dangerous*, and *slight*; and we recognised nothing in Mr. Marshall's paper, that may not be found in the work above mentioned, in Paris and Fonblanque, or in Gordon Smith's.

Mr. Marshall, however, is entitled to the merit of having called forth a lively and animated discussion on a subject of the highest importance to the public welfare—*the medical competency of coroners.* In some remarks, prefatory to the substance of the essay, Mr. Marshall alluded to the lamentable ignorance of coroners in general, on medical subjects; observing, that the ends of justice are, in many instances, defeated, and, in others, perverted by such ignorance; that an innocent man is, perchance, incarcerated, and thus an indelible stain affixed to his character; whilst, on the other hand, the guilty wretch escapes punishment.

It was maintained by Mr. Lambert, (who acknowledged that he derived *his* opinions on this subject from the pages of The Lancet,) that all the evils complained of would be effectually removed, by appointing medical men to fill the office of coroners. He argued, that inasmuch as the object of an inquest was to ascertain minutely the direct and immediate causes of sudden deaths, and that to effect this purpose it required the most extensive medical knowledge; it followed, as a matter of course, that the presiding judge, the coroner, should possess the most accurate professional information. For how, otherwise, (inquired Mr. Lambert,) could he correctly direct the jury—their verdict being indisputably founded, *in toto*, on medical evidence.

With respect to the legal qualifications necessary for a coroner, Mr. Lambert observed, that they were trivial indeed; he had not to consult precedents—he had not to refer to obsolete statutes—to hunt through musty volumes, to solve some subtle point of law. His duty (said Mr. Lambert) is so plain, so palpable—that to talk of the *legal* knowledge requisite, is utter nonsense.

In opposition to these opinions were Dr. Barry, Dr. Shiel, and Mr. Hunt; and, in support thereof, were Mr. Skene, Dr. Locock, and other members. Dr. Barry thought that, in many cases, the cause of death is so manifest, that medical evidence is not requisite; and that, in cases where it is necessary, indifferent medical men may be called in, who hence are less likely to be swayed by private motives, than if the office were confined to one individual.

The gist of Dr. Shiel's argument was, that the coroner has other duties to perform than the inquiry into the causes of sudden death; that, in some cases, he acts as a substitute for the sheriff, and, consequently, that he requires legal knowledge.

It was said, in reply to Dr. Shiel, that the law clearly had not contemplated the necessity of a coroner possessing legal knowledge, by the fact of the office being open to *any* individual, possessing a certain quantum of property. The debate was protracted throughout nearly the whole evening on the subject of coroners; but Dr. Barry at one period made some observations on the importance, in a medico-legal point of view, of being enabled to ascertain whether a wound be recent or otherwise; and he particularly alluded to the case of Mrs. Jeffs, lately murdered in Montagu-place.

At the conclusion of Mr. Marshall's paper he indulged in a *jeremiad*, on the "Cutting and Maiming Act," or, as it is commonly entitled, "the Ellenborough Act," comparing it to the sanguinary decrees of Draco, interlarding his remarks with scriptural quotations and appeals to Providence. In the course of reading his essay, Mr. Marshall also severely animadverted on the ignorance manifested by hospital surgeons, observing, however, that his censures had reference to those institutions which are merely under the *surveillance* of private governors, and not to those which are under the direction of government. Mr. Marshall was reminded, that none of the civil hospitals in this country are under the direction of government, and, consequently, that his censures were of the most sweeping kind. Mr. Marshall, in the course of the evening remarked, that he had been a dresser at the Middlesex Hospital, hence, perhaps, arose his honest indignation at "hospital surgery." The time of the Society, however, had elapsed, when further explanation was called for, and it was moved and carried, that the debate be adjourned; but Dr. Barry subsequently expressed his dissent, and took the sense of the Society a second time on the question of resuming the subject, when it was decidedly negatived.

LONDON MEDICAL SOCIETY.

Monday, February 4, 1828.

Dr. Haslam, President, in the Chair.

The business of this evening consisted in the reading of, and discussion upon, a case of fungoid disease of the thigh, communicated by Mr. Shearley.

The patient was 22 years of age, and the disease came on after a severe contusion; it rapidly attained an enormous size, and had a fatal termination. It was found upon dissection that the tumour emanated from nearly the whole extent of the femur, and it presented all the characters of true fungoid disease. The bone, which was exceedingly scabrous, was exhibited to the society, as were also some drawings of the tumour, showing its brain-like appearance.

The debate which ensued upon this case was principally in reference to a mode of treatment suggested by Mr. Callaway, namely—the division of the periosteum. He argued, that as the periosteum was the main support of the bone, it would follow as a matter of course, that if this membrane were stripped from the tumour it would slough, and in confirmation of this, Mr. Callaway related several instances. This practice he considered applicable to all cases of exostosis in their commencement, admitting that when the disease had attained such magnitude, as in Mr. Shearley's case, it would be of no avail.

It was strenuously contended by Mr. Lambert, that the disease in the case in question, as in most instances, arose from the substance of the bone and not from the periosteum; that the bone derives but little support from this membrane, and that stripping it off does not necessarily lead to exfoliation. Hence arose a long debate on the formation and growth of bone, in which Mr. Gossett, Mr. Bryant, Mr. Lloyd, and other members bore a part, arguing, that the periosteum is the main agent in the formation of bone; whilst on the other hand it was maintained that the vessels of the bone have the power in themselves of forming bone, independently of the periosteum, and, in consequence, are obnoxious to diseased action, unconnected with the membrane.

A successful case of transfusion, which has occurred recently in the practice of Mr. Howell, was detailed; but there was little discussion on the subject.

DIALOGUE OF THE LIVING.

Mrs. C.—Mr. Brodie.—Scene, Welbeck Street.

Mrs. C.—Mr. Brodie, you are an excellent Greek scholar; you know you told us so; come and explain to us this Greek passage in The Lancet.

Mr. Brodie—The Lancet! It 's a work I never read, Madam.

Mrs. C.—Well, what does that signify, Mr. Brodie? Come to the table.

Mr. Brodie—The Lancet, Madam, I repeat, is a publication which—

Mrs. C.—I shall positively be angry, if you don't come.

Mr. Brodie—Well, Madam, since you insist—*(approaches the table, and takes up the Lancet)*. Let me see. Humph! Ha! What have we got here? Greek, sure enough!—let me see. *(Reads the Epitaph on Ben Travers's patient, as follows)*:—

Barbara celarent—Shocking!

(Begins again)—*Barbara celarent darii*—Infamous!

(Again)—*Barbara celarent darii ferio baralipton.*—Horrible! I'll not read another syllable! It's in praise of the Pope, and not fit to be read to a Protestant female!

(Flings down The Lancet, *and rushes out in a transport of virtuous indignation).*

EPIGRAM.

(From a Correspondent.)

Tremendous gashes, fourteen inches long,
Tho' Cooper blame, in patient's limb or back,
Still longer, deeper cuts, he thinks not wrong,
In castigation of a feeble hack.

THE LANCET.

Vol. I.] LONDON, SATURDAY, FEBRUARY 16. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. JAMES BLUNDELL.

Lecture XIX.

Our remarks on floodings generally being brought to a close at our former meeting, I proceed, Gentlemen, this morning, to enlarge a little on those different species or varieties of flooding, which you are likely to meet with at the bed side, dividing them into those which are occurring in the first three or four months of pregnancy, and those which make their appearance in the last three or four,—the earlier and later floodings, as they may be called.

Before, however, I enter on the consideration of the earlier floodings, it may not be amiss, on the very threshold of our subject, to premise a few observations on the appearances of those substances which, in this part of gestation, are found to come from the uterine cavity.

I may observe, then, at the outset, that rarely, yet occasionally, as this preparation shows, the whole ovum is expelled from the uterus entire; in shape and bulk like a pullet's egg, containing a cavity of appearance immediately to be described, with liquor, and sometimes a fœtus not bigger than the garden bean. More frequently, however, disruption precedes the expulsion of the ovum, the parts of which escape in succession; and first the liquor escapes, and then the embryo, if this be not already vanished, to be followed ultimately by a fleshy mass, which constitutes the most important part of the whole structure, well exhibited; to view in this preparation-glass. In this fleshy mass, when washed and immersed in clear water especially, you find a hollow of bumpy (tubercular) surface—smooth—polished—invested with a semitransparent glistening membrane of pearly appearance, through which the dark red of the structure over which it lies, may be obscurely seen. With this fleshy mass, which at first glance resembles a clot of blood, membrane is marginally connected, floating in the water, and forming, in the entire condition of the ovum, a part of the cavity in which, as in the hollow of the egg, the embryo is lodging. Before I proceed to the next appearance of the ovum, it may be proper to remark, that in the earlier months the fœtus is of very small size, compared with the bulk of the secundines, as these preparations clearly demonstrate; so that the fleshy mass, with which the embryo is in connexion, may be large as half the hand, when the embryo itself is no bigger than a single joint of the little finger. Now for the ovum to come away in a third manner, is by no means very uncommon; the fœtus, it may be, being first expelled, or not appearing at all, while the secundines follow by pieces, one portion after another, till the whole is discharged from the womb. To those who are accustomed to inspect the ovum of the earlier months, if the structure be in ordinary condition, it is by no means difficult, on examination, to determine whether a part only, or the whole, be away; but those practitioners who have paid but small attention to these matters, are liable to deceive themselves with the persuasion, that the uterus is completely evacuated, when, in reality, a part of the ovum still remains in its cavity. The embryo is so small at this early period, and the secundines are so large, that, at first glimpse, one half of them seems proportionally of bulk more than adequate to the fœtus. Beware, therefore, of falling into error here—beware of presuming that the uterine cavity is empty, when a portion of the secundines still remains; for this portion lodging in the hollow of the uterus, may keep up the drainings as effectually, as if the ovum lay there entire. Again.—Hereafter, you will understand more clearly, that the ovum, composed of two parts, the one the fœtal portion, made up of the embryo, enclosed in a delicate membranous bag, covered with a fine shag; the other, the maternal, consisting of the fleshy mass, which, in good measure, encloses both the embryo and its receptacle, corresponding with the placenta of the full-grown ovum of nine months. Now, it sometimes happens, that the fœtal part of the ovum is expelled alone on one day, while the placenta, or remaining portion of the ovum, escapes from the uterus a length of time afterwards, an interval of uncertain duration, sometimes of a few hours, sometimes of a few days, being interposed; the woman during the whole term having all the symptoms of miscarriage, as, by the presence of the placentar portion of the ovum, the distention of the uterus is kept up. Now, in cases of this sort, you are more exposed to deception, because, the embryo, with its membranous cyst and liquor amnii coming away, as the preparation exhibited shows, it has, to the inexperienced, the appearance of a complete ovum: the inexperienced only, however, can be deceived in this manner; for if your eye have been accustomed to the inspection of miscarriages in the earlier months, the want of the placentar part of the structure must appear obvious at once.

For women to conceive of three, four, or five ova at once is very rare; but the occurrence of twins is by no means infrequent. Now, in miscarriages, sometimes a single ovum may come away, another, or the greater part of another, still remaining behind in the cavity of the uterus. Not to mention that we now and then meet with cases in which, together with a healthy ovum, there forms in the womb a fleshy mass, (a mole, as it is popularly called,) in which no traces of ovum are descernible, the whole of the ovum being expelled, and this mass remaining behind in the uterus, and, as in ordinary miscarriage, keeping up the discharge of blood. In difficulties of this kind the prudent and very circumspect practitioner, the Volpone of his profession, will probably soon detect the nature of the case; but those who are rash, or have seen little, may be again deceived, inferring, with too much certainty, a thorough evacuation of the uterus, because a complete ovum is come away. The error, not of speculative nature, is to be deprecated in a practical view; for the bleeding from the uterus continuing, yet not being understood by the practitioner, it is probable that he may not have recourse to the more judicious means for its suppression. When the case is ambiguous, examination is the only diagnostic on which we may with certainty rely.

In miscarriages, it is by no means uncommon to see no traces of the embryo; dead, perhaps, and dissolved, in the liquor amnii, like sugar in water, or food in the gastric juices. Occasionally we find parts of the embryo only, the head more especially; and it well deserves commemoration, that now and then the embryo dying, and melting perhaps in the second month, the secundines are retained, and continue to grow till they acquire the bulk of the same parts in a nine-month ovum, so that, to the astonishment of the unpractised, there at length issues from the womb a large placenta, with its membranes and water, without the fœtus, which might be supposed to tenant them. When, too, the ovum dies in the earlier months, it may be retained till the close of pregnancy, the fœtus, without growing or decaying, remaining quietly in the cavity of the womb till, in the seventh or eighth month, perhaps, labour pains occurring, the ovum is at length expelled, but not of the bulk which, from the age of the gestation, we should have anticipated. Hydatids sometimes form in the ovum, and, if I may be allowed the expression, devour it; sometimes a part only becoming converted into their substance, so that they lie embedded and concealed in the placentar structure; sometimes the whole—or, with the exception of a few vestiges, the whole—being consumed, so that in place of the ovum, nothing but these animalcules remain in the uterus.—Sometimes they form a cluster large enough to fill a washand-basin, or a vessel more capacious; sometimes they are altogether of much smaller bulk. Much bleeding accompanies their expulsion when their growth has been great, nor is the flooding always sparing when their bulk is much smaller. While adverting to the changes which the ovum undergoes before its expulsion, I must not forget to remind you of those shapeless masses, membranous or solid, before mentioned. Of these it may be observed further, that sometimes there are several, more generally they are single; like the ovum itself, they vary much in their bulk, sometimes not larger than the pullet's egg; occasionally large as the fist, the child's head, the child itself, or even larger than this. Masses like these may give rise to symptoms similar to those produced by ordinary miscarriages, and they are best managed on the same principles as other flooding cases.

And thus much then respecting the different substances which escape from the uterus in the earlier and middle months. The various points worthy of attention are well illustrated by the series of preparations on the table before you, and which I now proceed to circulate.

For this preparation of the ovum I am indebted to my friend Mr. Sterry; you see it entire, in size and form, like the fowl's egg; the preparation which follows it also of the earlier weeks, at first glance presents an appearance like a clot of blood, and shows how needful it is to order the nurse to preserve, for the inspection of the accoucheur himself, all solid substances which may pass from the vagina, in order that he may decide whether or not the ovum be come away.

The third preparation shows the interior of this apparent clot, and exhibits excellently well the various characters of the cavity in which the fœtus lodges; the smooth membrane, the bumpy (tubercular) surface, with its glistening, pearly, yet livid red colour. These glasses contain specimens of the fœtal portion of the ovum, only a few weeks old; consisting of a bag covered with fine shag, filled with water, in which the embryo floats. On careless, or inexperienced inspection, such substances may seem to form entire ova, but in truth they constitute but a small part of the whole structure. In the glasses now put forward you see the fleshy masses, big as one-third, or one-half the hand, and which consist of the fleshy parts belonging to the preceding. Here is a fœtus of the size of three months; it remained in the womb till the seventh. Here is an amorphous mass, which came from the uterus after a four-month ovum had been expelled, and the miscarriage was supposed to be complete—much bleeding attended. This fine cluster of hydatids came from the uterus, as you may know by their being all of them like grapes appended to a stalk; you may see the remains of the ovum on which they have been feeding. This engraving is of a placenta and membranes of the size of seven or eight months, matured in the uterus, after the embryo, of small size probably, was dead and dissolved in the liquor amnii; the secundiness of great bulk coming away without their usual occupant, the fœtus, to the great surprise of the accoucheur. At small expense you may make for yourselves preparations of the substances which come from the uterus, and I recommend you, when in practice, by all means to do this, as it is desirable that these appearances be well known to the accoucheur. From ten to fifteen glasses would probably contain all the specimens your practice might require. As you examine the different preparations which are now passing round, do not omit to notice the smallness of the fœtus in the earlier months, and the largeness of the secundines with which it is connected.

Management of Flooding in the earlier months.—When floodings occur in the earlier months, if the patient is robust and strong, and full of blood, and if she be left in a great measure to her own resources, the practitioner prescribing on general principles for occasional symptoms, she will in general do well; and very satisfactory it is to the young accoucheur to remember this, as, like an anodyne, it may soothe and tranquillize the mind when he is sitting at the bed-side of the patient. Without, however, meaning to alarm you needlessly, it is proper I should remark, that women do not always recover, even in the earlier months, and certainly not always in the middle parts of pregnancy, when the discharges become larger, more especially if the patient have flooded much in preceding miscarriages, and have thus been much reduced in blood and flesh. Under these earlier bleedings, in some few instances, women sink from inanition, and still more frequently, when they escape with life, the tenor of the general health becomes greatly impaired, so that for months or years together, they labour under the cachexia produced by bleeding; dying, perhaps, at last, of hydropic, enteric, or other affections. As, therefore, sometimes, though rarely, they are attended with danger, and as they always impair the health and create much uneasiness and anxiety to the patient and her friends, the different varieties of earlier flooding are well worth the study of the accoucheur; and I proceed, therefore, to remark on them.

Of miscarriages in the earlier months, there are some remarkable for the rapidity of their progress; in the morning the patient is well; in the evening, after a *fright, long walk*, or after the ordinary bustles and fatigues of her establishment, sometimes, too, without any obvious cause whatever, she is suddenly seized with an eruption of blood from the uterus; fainting follows—then a rally—then pain—then expulsion of one of those substances just demonstrated; the process, perhaps, being completed in the course of one or two hours. The evacuation of the uterus is followed by a contraction of its cavity, and a cessation of the bleeding, the patient recovering completely in the course of a few days, so that scarcely a trace of the accident remains. Of all the forms of earlier flooding, this is most to be desired. More generally, however, it happens in a way more harassing to the practitioner, that the expulsion takes place in a gradual manner; induced, as before, by some imprudence, or arising, it may be, without any obvious cause. At first, perhaps, a few ounces of blood are lost, and then the patient, keeping herself cool and composed, the hæmorrhage ceases, returning, however, when she rises, and begins again to stir about; and thus it may be, bleeding at one time and free from hæmorrhagy wholly or in great measure at another, she gradually sinks into a state of inanition, becoming pale, cold, fainty, so that she is compelled at last to confine herself to the sofa or the bed.

Meanwhile, as the bleedings proceed, pains begin to form, cutting, grinding, sawing, at first, then forcing, and, beyond all further doubt, parturient; and more blood flows from the uterus, and, sooner or later, the contained substances come away under the forms before shown and described. Days, weeks, sometimes one or two months, or more, may be occupied by this process, and the total quantity of the blood lost may be large, the constitution suffering much in consequence, and, in some few cases, death itself being the result.

There is yet a third variety of hæmorrhage well deserving of notice, I mean the hemorrhagy, whether rapid or tardy, under which you have merely a partial evacuation of the uterus. A woman is seized, perhaps, with an eruption of blood from the womb, and a substance mistaken for the ovum comes away, so that you are assured by your predecessor in the case that the uterus must have been thoroughly evacuated. Notwithstanding this, however, you learn that the hemorrhagy does not cease, and, from this time, it may be for weeks together, the patient is more or less liable to discharges of blood from the uterus, and by and by there issues from the womb an offensive odour, as if something were decomposing there. When the uterus is in this way partially emptied, there may be a retention of half the ovum; there may, too, be a retention of a twin, an accident, however, which in these cases I never myself witnessed; or, as before observed, there may be a retention of some fleshy mass in the nature of a mole lying in the uterus, and keeping up the bleeding; and this I have myself seen. Now in these perplexing cases, the grand point is to decide, whether the womb is empty or not—and to this end, when floodings prove obstiate, you should always bear in mind the recollection, that it is to something retained in the uterine cavity, that this obstinacy is most probably to be ascribed; nor should you suffer yourselves to be lightly driven from this opinion by the declarations of those who have preceded you in the management of the case. A suspicion of this kind, prepares the mind for furthur investigation. In midwifery, as in medicine generally, too much faith is a fault. Doubt—investigate—the more the better—truth here has no fears. Well, then, suspecting that the ovum is partially retained by the uterus, if the health be much shaken by the continuance of the bleeding, you must of course determine this very important point. Now that the womb is not emptied, you may sometimes know, by examining the ovum which has been expelled, and finding that it is not complete. And if you have been in the habit of examining preparations of this kind, and particularly if you have been in the habit of making them, as recommended, acquiring an experienced eye, you may sometimes decide at a glance whether or not the ovum be complete, and, therefore, whether, without retention of any part, the whole of it have been expelled from the uterus.

Again, you may further judge, whether or not some substance be retained in the uterus, by ascertaining whether, after the reputed evacuation of the contents of the uterus, the patient have still remained obnoxious to floodings, cutting or forcing pains, or those smells offensive to the sense, resulting from animal decomposition. Now, if there is a pertinacious discharge, and if, more especially, with this discharge, pains or fœtor are concurring, there can, I think, scarcely be a doubt, that there is something still remaining in the cavity of the uterus. Should the urgency of the case, however, demand decision, and should the point still remain in doubt, provided your hand be small, and your manual skill considerable, you may generally at once determine the question by the introduction of the fingers into the uterus,—an operation, however, not without its dangers, to which, therefore, you ought not wantonly to have recourse, and from which, in the commencement of practice, it is better to refrain. In performing this operation, as the vagina is very relaxed, the left hand, if small, may be gently deposited in its cavity, and then the bladder being empty, you may place the right hand over the uterus above and behind the symphysis pubis. This done, the first and second finger of the left hand being passed onward from the vagina, up to the very fundus of the uterus, which, by the counter-pressure of the right hand, is cautiously pushed downward and backward upon their tips, the cavity may be examined without any difficulty. Should you find a solid substance in the uterus, you may, at the time, take it away. Though, in the earlier months, you may pass your hand into the vagina, you must not even think of passing the entire hand into the *uterine* cavity. I had almost added, that the very thought is enough to bruise and tear the parts. If you are, from former experience, fit to perform the operation, which I have been describing, you will find no difficulty in executing the different parts of it. Without the safety, or, at all events, the entire future health of the patient demand the operation, it ought not to be done. It is an evil, justifiable only when a remedy for one still greater. If you want skill, have recourse to some one more dexterous. Dilators of the os uteri, and extractors to remove the ovum, have been contrived; they are more likely to do harm than good. Iron has no feeling for you or for the patient.

There is one other variety of flooding in the earlier months, which it may be well to mention here; I mean the flooding which continues after the womb is in reality thoroughly emptied, of which I have seen several instances. In the third month, perhaps, the whole ovum comes away; but, instead of shrinking in the ordinary manner, the womb still remains very large—very lax—very vascular; the patient, of consequence, continuing obnoxious to the bleeding. It is by examination only, as before explained, that this case may with certainty be made out; by passing into the uterine cavity two of the fingers of the left hand, and counter-placing on the fundus uteri above the symphysis pubis the fingers of the right, the condition of the womb may be clearly ascertained. Remember, however, what was before stated, that to internal examinations of this kind you ought never to have recourse, unless the life or the entire health of the patient require them. Generally, in the earlier months, women will do very well, provided you let them alone. And thus much, then, respecting the more interesting varieties of earlier flooding. The rapid, the tardy; the flooding, in which some portion of the ovum, or some other solid substance, is retained in the womb. And the floodings, lastly, in which, though the uterine cavity is empty, the hæmorrhage continues nevertheless; the womb being large, lax, and full of great vessels, with its vascular orifices unusually relaxed.

Management of the Earlier Floodings.—After the general observations already at large premised, the management of the earlier floodings may be compressed into few words. If a woman, in the earlier months, is labouring under a flooding of one or other of the four varieties, no obvious danger attending, the less you actively interfere, the better. The patient should be a-bed, quiet, and cool; the bowels should be opened, the system, if feverish, should be refrigerated; and cold should be applied topically, and, in larger doses, perhaps, lead should be administered, or the vagina should be obstructed, provided the discharges, copious and pertinacious, seem to require it. But if you find your patient labouring under a discharge more copious and dangerous, and if there is reasonable cause for believing that life, or the tenor of her future health, may be in danger, practices more vigorous than those just enumerated may be required. In these rarer exigencies, besides the remedies ordinary in such bleedings already detailed at large, it behoves you to consider whether you may not have recourse to some of the deobstruents formerly commended, (ergot, for example,) in order to accelerate the expulsion of those substances lodging in the uterine cavity, keeping up the dischage. The ergot I have sometimes tried, according to the rules formerly prescribed, and with the greatest advantage. From idiosyncrasy, or other causes, should the ergot remain inert, it would, too, be for consideration, whether you might not manually interfere, emptying the uterus by that action of the fingers, already explained and demonstrated. Such interference, however, be it remembered, is always an evil. Violence will bruise, tear, and kill. To remove the ovum, however, when it lies not in the womb but the vagina, is often both safe and proper, in both varieties of flooding. Yet, when the bowels are open, often of itself it comes away.

I will not suppose it necessary to remind you, that in the latter floodings, when the woman, without further discharge, lies in a state approaching to asphyxia, to disturb the clots by manual operations may be death. I should despair of teaching you prudence and caution, could I imagine that this principle, so lately pressed home upon the attention, were already effaced from the mind; and yet I have my misgivings: memories are sometimes aqueous. Remember, that even in earlier gestation, if the woman have lost much blood, and if she be in a state of deep fainting, it is unsafe at this time, in any way, to disturb the clots. Let her lie and rally. Assist her by other means than manual operations about the vagina. Transfusion may be necessary.—Then, when she is thoroughly established, when the bleeding shows a disposition to return, when, the womb being empty, the drainings of blood still obstinately continue, vaginal operations may be proper enough.

In continued drains from the uterus, when emptied of its contents, besides the more obvious and general practices, there are two deserving especial notice—mercurial action, and the injection of the uterine cavity. Though not, I trust, besotted with an overwrought opinion of the powers of this valuable mineral, I think some cases have fallen under my notice, in which, whatever its action, the cessation of the drainings might be reasonably attributed to a mercurial action in the system. Do not, however, I entreat you, without reflection, headlong, go and salivate your patients. A slight soreness of the mouth is all I would recommend, and this as an ultimate remedy. It would be better for the personal charms, and, I am sure, sometimes better for the health of our patients, if some of our blue pill and calomel were converted into looking glasses.

The injection of the uterine cavity with astringent fluids, I learned entirely from my valued relative Dr. Haighton. Its due performance requires an accoucheur; for it is not into the vagina, but the womb, that the fluid should be thrown. Twice, or oftener, in the day, the fluid may be thrown up. Begin with a scruple of alum to a pint of water, increasing the strength according to the effect produced. The blood is sometimes consolidated in the uterus by the action of the alum, and may, to the great alarm of the patient, be expelled with pains like those of parturition; and for this, she should be prepared. Though not prepared to assert that this practice is wholly without danger of inflammation, I never, myself, saw any serious ill consequences resulting. Women are now living who have, I think, been preserved by this remedy; but it should not be used without need.

The grand errors which you are likely to commit in managing the earlier floodings, are, I think, the following. When *tyros*, and young soldiers in midwifery, you are apt to be too soon intimidated by the sight of blood. Perturbations are always undesirable in a practitioner; be it remembered, of the earlier bleedings, that they generally do well; that thought is an excellent anodyne. Again, if rash and resolute, you may fall into a second error, in some measure the result of the preceding; that, I mean, of needlessly thrusting your hand into the vagina, and your fingers into the womb. Remember, I have told you, nor can I reiterate it too often, that you never can enter into the womb without risk; and who, of common humanity, will incur that risk unless overborne by a paramount necessity? Now, in floodings of the earlier months, such necessity but seldom exists; of consequence, but seldom are your active manual operations required. It may, it is true, be sometimes necessary to use the hand; but a meddlesome midwifery is bad. Beware. Remember the principles formerly prescribed. The use of instruments to dilate the mouth and neck of the uterus, or to take away substances from its cavity, I dislike; in a young accoucheur, it is certainly an error. That dilatation of the os uteri can never be proper, I dare not assert. Now and then the finger may be used as a dilator; now and then the forceps may be used to take away the substance contained in the uterine cavity; but these anomalous cases are so rare, that, not to bewilder the mind, it is wiser, perhaps, to consider them as nothing. Beginners, at least, and such I address, ought not to be perplexed with them; and on the whole, for you, I think, it is better to take the chance of evil arising from the rejection of these practices, than the chance of the still greater evil which may result from their adoption; for the cases in which these practices may be needlessly and injuriously attempted are innumerable; but those in which the rejection of them may be attended with ill consequences, are indeed few. A meddlesome midwifery is bad. "*Bene ascolta chi noia.*" To suppose the uterus to be empty when it is not, is another grave error. Recollect the diagnostics stated to you in the course of this morning, and you may, I think, generally keep clear of this mistake. Nor, perhaps, is it unnecessary to guard yourselves against an error the converse of the former—that of imagining, because the bleeding is pertinacious, that something must necessarily be retained. In the more doubtful cases—time or examination must decide. Of the latter floodings we will treat at our next meeting.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE,

Delivered at the Royal Institution of Great Britain.

Lecture XXVII.

On Potassium, Potash, Nitrate of Potash, and Gunpowder.

The decomposition of potassa, and the discovery of potassium, were effected soon after the development of electro-chemical science, and I have before had occasion to mention to you how the electric poles act in the decomposition of the metals.

It was scarcely credited at first, when Sir Humphrey Davy announced that soda and potash had metallic bases, and it was not until two years after, when in the Croonian lecture he detailed the process which led him to that conclusion, that the statement obtained general assent. He obtained the metal potassium by submitting caustic potash to the action of Voltaic electricity, and the metal was slowly evolved at the negative pole upon the platinum capsule. By operating with great care, Sir Humphrey Davy was enabled to ascertain the properties of these metals; he found that they were different from all other metals in certain respects; that by their union with oxygen, soda and potash were formed; and thus analytically and synthetically the truth of the new discovery was established. By this process, however, only very minute quantities of the metal could be obtained; and Gay Lussac and Thenard, reasoning upon the constant elevation of the attractive power of bodies for oxygen by heat, thought that they might find some substance which had a stronger attraction for oxygen than the potassium; and such substance they found in iron-filings heated to a red heat. They conducted the experiment in the following way: they bent a gun-barrel, and placed the bent part of it in the fire, having been previously coated with clay. Into this barrel some clean iron-filings were introduced; from one end of the barrel a tube was passed into a receiver of mercury, and another tube from the other end into a receiver containing water, and when potash was put into the upper end of the barrel, and came into contact with the heated iron-filings, it began to be decomposed, and potassium was deposited at the opposite extremity of the barrel; and so successful were they sometimes in this experiment, that 200 grains of potassium have been obtained at a time. Berzelius has also obtained potassium in a large quantity.

Its specific gravity is only 83, water being 100; it is solid at common temperatures, and may be melted into forms by a moderate heat, like wax; you observe that it is sufficiently soft to be cut with a knife, and if pressed upon, it will extend under such pressure, but only at common temperatures, as it is quite brittle at zero, and breaks like zinc. When heated to 150° of Fahrenheit, it fuses, and is perfectly fluid, resembling mercury. It is a white metal of great lustre, and when it is cut or broken, the lustre of its surface is immediately lost, from being coated with its oxide, as it readily absorbs *oxygen* from the air; and you see that merely by friction, so great is its attraction for oxygen, that it immediately inflames; and even when dropped upon water, it melts, and immediately assumes a globular form, and soon after ignites. It will inflame even when put upon a piece of ice, and the fluid left will be found to be a solution of potash, as you see here (showing the experiment). The action of potassium upon water is, therefore, a most correct and facile experiment for the decomposition of water, which you know is composed of two volumes of hydrogen and one of oxygen; and, therefore, by measuring the quantity of hydrogen evolved by the decomposition of the potassium, we can ascertain how much oxygen enters into the composition of potash. All, therefore, that can take place when the metal is put into water, is the evolution of as much oxygen as the weight of the potassium used; and, by repeated experiment, it has been ascertained, that 40 parts of metal require 8 parts of oxygen to form potassa, and these 48 parts of potassa combine with 9 of water to 57, the equivalent of the hydrated oxide of potassium, or common caustic potash, which has such a strong affinity for the water, that it resists decomposition even at a red heat. When potassium is heated with the common *hydrated oxide of potash*, or caustic potash, it decomposes the water united with it, and dry potash is the result, which is a hard grey substance; and this furnishes one of the strongest proofs of the great affinity of certain substances for water, since the hydrate of potash retains water even at a red heat, but is separated from it by potassium.

Now the *oxide of potassium*, or potash, is obtained from the carbonate of potash, which will be shortly brought before you, by lime-water; the lime attracts the carbonic acid from the potash, and, being insoluble, falls to the bottom of the vessel; the liquor containing the free potash is decanted and evaporated, and thus *potassa fusa*, or the caustic potash of the shops, is obtained. But as this potash contains some impurities, it is necessary to dissolve it in alcohol; and upon the evaporation of the alcoholic solution, we obtain the pure potash, which is a grey substance, which fuses at 4 or 500°, varying in this respect from the quantity of water it may contain; but when treated with eight or ten parts of water, it is a colourless body. It acts powerfully upon vegetable and animal substances, and tinges, turning red and other vegetable colours to green. When the hydrate of potassium is dissolved in about half its weight of water and evaporated, it may be obtained in the shape of crystals, which are octaëdrons.

We now come to the consideration of the compounds produced by the union of *potassium* and *chlorine*, and I hope to be able to free the subject from that degree of doubt in which it was so long left. So strong is the attraction between these two substances, that the metal inflames when they are brought into contact; and if, as sometimes happens, it should not inflame, it is owing to the crust which forms upon the surface of it. I shall first introduce a piece of potash into chlorine in the unheated state, and you see what rapid combustion goes on. Now, during the combustion, 10 grains of the metal combine with 11 cubic inches of chlorine, and the result of the union is a *chloride of potassium* 76, being composed of 40 potassium and 36 chlorine. This substance, the chloride of potassium, is a very different substance from that called muriate of potash, which is a binary compound; and I shall endeavour to make clear another point which has been already adverted to, namely, to illustrate the effects produced when chlorine is brought into contact with potash in solution. When this is done, a chloride of potassium is formed, but it leaves the oxygen of the potash in a curious situation, which, with some of the excess of potash and of chlorine which remains, forms a *chlorate of potash*; so that, when chlorine is brought into contact with a solution of potash, instead of cooling oxygen, as it did when potassium was brought into contact with the chlorine, a part of the chlorine combines with the oxygen of the potash to form chloric acid, which, uniting with the excess of potash in the solution, forms a *chlorate of potash*, whilst the other portion of the chlorine combines with the potassium to form a *chloride of potassium;* so that you are to imagine, that there are two portions of chlorine employed, and that they are consumed in the way I have described.

This chlorate of potash, or oxymuriate of potash, as it was formerly called, crystallises in hexaëdral, or rhomboidal, plates; and when thrown down from its solution by cold, magnificent coloured crystals are obtained, which is owing to the light being polarysed upon them from their extreme density. The taste of the salt is rough and austere, and when triturated in the dark, light is elicited from it; when exposed to a dull red heat, it decrepitates, fuses, and gives out oxygen, and by this process 124 parts of the chlorate of potash are reduced to 76 of the chloride of potassium. A mixture of these parts of this chlorate with one of sulphur, detonates loudly when struck upon an anvil with a hammer, and sometimes explodes with great violence spontaneously; so that whenever you make any experiments of this sort, you should operate only on very small quantities. When the chlorate of potash is decomposed by sulphuric acid, *euchlorine* is evolved, and an oxychlorate of potash formed; the action which takes place is very difficult to explain by mere words, and in fact the change is not very important. *Fire boxes* are often made with the chlorate of potash in this way; the match is dipped into a mixture of chlorate of potash and starch, in which there is also some sulphur; and the end of such match, when dipped into a little bottle containing sulphuric acid, instantly ignites. The sulphuric acid is generally contained in a little asbestos.

With regard to the action of *iodine* upon *potassium*, it will be necessary to go into a number of details respecting it, which will save us the trouble of repeating the same in the history of the other metals by and by.

When iodine and potassium are melted together, they combine very rapidly, and form a white compound, which is readily soluble in water; it is the *iodide of potassium*, and is composed of one proportional of iodine 145, and of one of potassium 40. It has a bitterish taste, and has been applied to a variety of purposes, especially in medicine; and it has been found to be a powerful promoter of absorption, especially in glandular enlargements; it is also employed as a test in the laboratory, as you will hereafter see. Now, if you introduce into a solution of potash a little iodine, or solution of iodine in alcohol, you will observe that the solutions immediately act upon each other; the iodine dissolves in the solution of potash, and a yellow liquor is formed; this liquor is afterwards evaporated to dryness, and if the residue be then exposed to a red heat, we obtain an iodide of potassium; but if we evaporate carefully, and not quite to dryness, we get an *iodate of potash* and an *iodide of potassium*, which may be removed by dissolving it in alcohol, leaving the iodate pure. The best process, however, of obtaining iodate of potash, or, as it is called, when dissolved in water and crystallised, *hydriodate of potash*, is to evaporate the before-mentioned liquor to dryness, and having made the residue red hot, to dissolve it in that state in water, and then, by evaporating the water, to crystallise it; thus you will procure hydriodate of potash, which is composed of 48 potash and 126 iodic acid, so that its equivalent is 174; but in its dry state, it is composed of 40 potash and 125 iodic acid, giving 165 as its equivalent. Now, of course, in this instance, you find that the oxygen of the potash furnishes to the iodine as much oxygen as may be required to convert it into iodic acid. The potash having thus lost its oxygen, combines in part with the iodine to form an iodide of potassium, whilst the remaining undecomposed portion of potash unites with the iodic acid to form an iodate of potash, just in the same way as when you heat chlorate of potash, which compels it to give out oxygen, and thus becomes converted into a chloride of potassium, as already explained.

It appears that *potassium* combines with *hydrogen*, if you heat it intensely with hydrogen; and you obtain a spontaneously inflammable compound which is of a grey colour, and is an *hydruret of potassium*.

This brings us to a very important salt of potash, namely, the *nitrate of potash*, nitre, or saltpetre. Now you may easily form this salt directly by adding potash to nitric acid; and by evaporating the solution to dryness, you obtain the nitrate of potash, which is a compound of 48 parts of potash and 54 of nitric acid, its equivalent being 102; and you will be good enough to recollect, that it is a salt destitute of the water of crystallisation. The salt crystallises usually in six-sided prisms, terminated by diedral summits; this not being its primitive form, but the usual secondary form in which it occurs; but when little care is taken in the crystallisation, the shape is of course very irregular. We never have recourse to the direct formation of nitre for its manufacture, since it is abundantly found as a natural product, and imported in large quantities from the East Indies, where it is found in an impure crystallised state in lixiviated soils. In the state in which it is imported, it contains common salt, earthy salts, and other substances, and it is only obtained pure by recrystallising it. Besides this mode of obtaining nitre, much has been done by artificial means, by the formation of what were called *nitre beds*; and although it would be premature to enter into their history here, I may state, that they consisted of a quantity of decomposing animal and vegetable matter, mixed up with a soil containing lime. A considerable quantity of ammoniacal matter was thus given out, which in decomposing gave out nitrogen; the nitrogen attracted oxygen from the air, and formed a nitric acid, which, by mixing with the lime, formed nitrate of lime, from which nitre was afterwards obtained by mixture with subcarbonate of potash. This mode of obtaining nitre was resorted to in France, with great success, during the revolutionary war, when the French were excluded from the other sources of obtaining it.

The solubility of this, and of almost all other salts in water, is variously stated by different chemical writers; and there are many difficulties which tend to prevent our determining the point. I believe that it is soluble in about four parts of cold water, and in rather more than half its weight of boiling water. Although, as I have stated, nitre is composed of 54 nitric acid and 48 potash, yet the ultimate elements of nitric acid are 14 nitrogen and 40 oxygen; so that the ultimate elements of nitre are 40 parts of potassium, 14 of nitrogen, and 48 of oxygen, because, as you will recollect, potash is composed of 40 potassium and 8 oxygen; and, therefore, substituting chlorine or iodine for nitrogen, you will see a strong analogy between the nitrate and the chlorate and iodate of potash, as they all contain a large quantity of oxygen in the solid or condensed state.

When you heat nitre, the salt undergoes a series of changes, which I may briefly describe. When heated to a point below a red heat, it fuses and congeals into a white mass, in which state it is usually cased in moulds of various forms, and called *sal prunella*, because, I believe, it was formerly customary to tinge it of the colour of some plum. If you heat it above this point it gives out a quantity of oxygen, but the salt remains a neutral, being converted into a nitrate of potash. If you then go on exposing it to heat, the nitrous acid is decomposed, torrents of oxygen gas come off, and there remains a quantity of potash with a small quantity of peroxide of potassium, as Mr. Phillips has recently stated. Now, in consequence of the great quantity of oxygen this salt gives out, it is used in the laboratory to obtain oxygen, which is sufficiently pure for ordinary purposes. If you mix it with charcoal, and then expose it to heat, a very intense and rapid decomposition of the salt is effected, and the results are carbonic acid, nitrogen, and subcarbonate of potash. Here is a crucible in which charcoal is mixed with nitre; we shall put it into the furnace, and you will find that a carbonate of potash will be formed, which was formerly called *nitrum fixum*, in the old chemical books.

Nitre is a great supporter of combustion. Here, for example, is some phosphorus, which we shall ignite, and place on some nitre; the phosphorus decomposes the nitre, and phosphoric acid will be formed, which will unite with the potash, and form phosphate of potash. In the same way a great many of the metals may be burned with nitre, and therefore it is used in the laboratory as an oxidizer of the metals. The action of sulphuric acid upon nitre has been already adverted to in describing the distillation of nitric acid. You will now, I trust, understand how it is that nitre becomes such a powerful oxidizer, on account of its containing such a large quantity of oxygen in a condensed state; you will see why it is capable of supporting combustion in a number of instances, and that very powerfully, confining oxygen upon substances with great energy.

There is one application of nitre of considerable importance, namely, in the *manufacture of gunpowder*, with a description of which I shall detain you a few minutes beyond our usual time this morning.

Gunpowder is a compound of sulphur, nitre, and charcoal, very intimately mixed in various proportions, according as it may be the object to obtain a fine or coarse powder. You will see from this table the relative quantities employed in the manufacture of the powder:

	Common.	Fine Shooting.	Shooting.	Miners'.
Saltpetre ..	75.0	78	76	65
Charcoal ..	12.5	12	15	15
Sulphur ..	12.5	10	9	20

If you take the trouble to calculate these proportions, you will find that the oxygen in the saltpetre is in greater quantity than is necessary for the combustion of the charcoal; but it is found to be necessary for the rapid production of the gaseous matter resulting from the action of the combustibles upon the nitre, on which the excellence of the powder depends. The perfection of the powder depends, in a great measure, upon the intimate mixture of its component parts; and, in the first place, it is an object to obtain as perfect a charcoal as possible. For this purpose, wood is distilled in iron cylinders. The sulphur employed is the native sulphur, in a state of very fine powder; the nitre ought also to be as pure as possible, and well purified from any deliquescent salts. These different ingredients having been mixed together in proper proportions, are placed between the vertical stones of a mill, for the purpose of being rubbed together until the mixture is perfect; the nitre and sulphur are first rubbed together in a distinct mill, and then the charcoal is afterwards added; and as they are all ground together with moisture, the whole mass gets into a cake. It is then dried and broken up into small pieces, and placed upon sieves, which lie upon a horizontal wheel, which, by its revolution, keeps the sieves in perpetual agitation; and in the sieves are two or three boles of lignum vitæ wood, to assist the reduction of the particles of powder; and when the process is finished, the powder is said to be *grained*. It is then dried, a process which you may well imagine to be attended with a great deal of risk, especially when stoves were used: now steam is employed for that purpose. The powder is afterwards polished, or *glazed*, as it is called; to accomplish which, the particles are kept in rapid motion, and by rubbing together the grains, acquire various degrees of fineness and polish, according to the purpose for which the powder is intended.

Now of course gunpowder, in consequence of containing so large a quantity of oxygen, will burn out of the contact of air, and the result of the combustion is the sudden extrication of a great quantity of gaseous matter; and what this gaseous matter must be, chemistry will teach you. There will be carbonic acid and nitrogen elaborated in considerable quantity; sulphurous acid, a small quantity of carbonic oxide, sulphuretted hydrogen, and water, will also be formed. The great superiority of the powder will depend upon the sudden extrication of the gaseous bodies: if you increase the quantity of the sulphur, you diminish the rapidity of the combustion, whilst you increase the strength of it; and, therefore, you see, that in the powder manufacture for mining purposes, this is provided. But we have not time to describe the whole of the results of these combinations. It appears, then, that the results of the combustion of powder are very complicated, differing in their relative proportions according to the relative quantities of the materials employed, the heat produced by the combustion, and so on. I have one remark more to offer, which is, that it appears capable of explosion by a very violent and sudden blow, and that, independent of any matters which may be considered capable of acting upon it mechanically. A very violent blow will ignite gunpowder, and it does sometimes happen that powder is ignited in this way accidentally, by coming into contact with certain parts of the machinery, where it is subjected to violent friction.

There is another compound in which nitre is concerned, which has been called *fulminating powder*. It consists of three parts nitre, two of dry carbonate of potash, and one of sulphur; and, if gently heated, it detonates with considerable force. In this compound it would appear, that the use of the carbonate of potash is, to keep down the sulphur until, at the high temperature to which the sulphur is thus submitted, it acts upon and decomposes the nitre to produce the explosion.

This brings us to the *sulphate of potash*, which will be considered in the next Lecture.

FOREIGN DEPARTMENT.

OSSIFICATION OF THE SEPTUM OF THE CORPORA CAVERNOSA OF THE PENIS.

An interesting case lately occurred to Dr. M'Clellan. A gentleman, 52 years of age, applied to him with incurvation of the penis upwards, which was apparently produced by a contraction and induration of the *vena ipsius penis*. The distortion was so great as to render micturition extremely painful and difficult, at the same time that it prevented all sexual intercourse. Dr. M'Clellan first divided the indurated vein, which presented the appearance of a ligament; in consequence of which the curvature was considerably diminished, and micturition improved. In the course of a few days afterwards, however, the patient returned and begged to have something further done for the relief of his other functions. On a careful examination, Dr. M'Clellan found that the septum of the corpora carvernosa was quite ossified, so as to present the feeling of a long narrow-bone within the substance of the penis. The organ was also peculiarly excitable, so that the slightest handling produced an immediate erection, in which state it assumed the form of a semicircular bow, with the concavity upwards. An incision was made along the whole length of the dorsum of the penis, and the indurated mass dissected out entire, by carrying the knife on each side of it, down to the very back part of the corpus spongiosum urethræ. The ossified substance was so hard as to grate audibly against the knife, the edge of which was entirely destroyed by the operation. A copious hæmorrhage ensued, which was soon checked, however, by the sponge and cold water. The skin was brought together by two interrupted sutures, and covered with a light compress and bandage. The preternatural curvature of the organ was not only removed by this operation, but a slight inclination towards the opposite direction was produced. It may be observed, therefore, that in the above proceeding, Dr. M'Clellan has imitated the common veterinary operation of *nicking a horse.—Philadelphia Journal of Medicine and Surgery.*

LIGATURE OF THE CAROTID ARTERY. BY DR. M'CLELLAN.

We have, within a few days, witnessed a very interesting operation by Dr. M'Clellan, which consisted in the ligature of the right carotid artery in a child aged but *seven months.* The circumstance demanding the operation was the existence of a frightful aneurism by anastomosis, occupying almost entirely the right side of the face. The nucleus of the diseased structure appeared to have been a nævus maternus, which, after birth, had increased with astonishing rapidity. The tumour was of a bright florid complexion, and evidently consisted almost entirely of blood. It partly closed the right eye, distorted the mouth, and overlapped the nose.

The neck of the child was short and fleshy. Dr. M'Clellan made his external incision rather higher in the neck than usual, and entirely above the omo-hyoid muscle. The laminæ of cellular tissue were carefully and successively divided until the artery and the vein were exposed. At this stage of the operation the Doctor realized the difficulty described by Sir Astley Cooper as arising from the swelling of the vein, and the protrusion of it before the artery. The blood strongly ebbed and flowed in this organ in correspondence with the respiratory efforts, and the operator experienced much difficulty in avoiding it and withdrawing, by means of the aneurism needle, the artery from beneath it. This, however, was at length very adroitly accomplished, and the ligature applied, without the occurrence of any untoward circumstance.

Soon after the application of the ligature, the tumour was observed to become less tense and more pale, and the pulsation, which before was vigorous, on that side of the face entirely ceased. Some degree of constitutional irritation and restlessness resulted, but on the fourth day had completely subsided; and the operation now promises to be attended with a very favourable result. —We shall report its final effects.

This is the fourth instance in which, within a year, Dr. M'Clellan has had occasion to secure the carotid artery. These operations have, for the most part, been attended with the happiest results—and none of them with any unfavourable circumstance. —*Ibid.*

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 9, 1828.

Mr. Arnott, in the Chair.

This evening Mr. North related two cases of hæmatemesis, which proved fatal under circumstances that are not generally supposed to indicate danger.

The first instance was that of a young and healthy female, whose menses had been suppressed for several months, and who had suffered much mental anxiety; she complained of great oppression at the precordia, with headach and slight febrile exacerbations towards the evening. Having continued thus slightly indisposed for a few days, she suddenly ejected from the stomach a large quantity of grumous blood, by which all her previous symptoms were relieved, and she became apparently in good health. In a few days, however, the same set of symptoms returned, and they were again speedily removed by a second vomiting of blood. The health of the patient being unimpaired, Mr. North was induced to give a favourable opinion with respect to the termination of the case, and "one of the first physicians in the metropolis," who saw the patient at this time, also coincided with Mr. North's prognosis, the discharge by the mouth being regarded as a means of relief adopted by nature in the absence of menstruation, and this opinion was strengthened by the fact of relief having been afforded by each evacuation; "but the first physician in the metropolis," and Mr. North, had not, however, left the patient's house more than half an hour, when she threw up a large quantity of dark grumous, and partly coagulated blood, and died in the space of five minutes.

Mr. North briefly related another case of hæmatemesis, in which a favourable opinion had been given, but which terminated suddenly in the death of the patient.

The inference which Mr. North drew from these cases was, the necessity of caution in giving an opinion as to the result of cases of hæmatemesis, although the discharges might appear to be salutary and the patient in good health. He said that he had consulted various authors, and he was not aware that any instances were recorded in which sudden death had occurred under circumstances similar to those he had related. The appearances found upon dissection, Mr. North considered as confirmatory of the doctrine of Bichat, that the hæmorrhage results from a general exhalation of the capillaries, and not from the lesion of a blood vessel. The whole mucous membrane of the alimentary canal being dark coloured, soft, and pulpy; and when this layer of apparently coagulated blood was scraped off, innumerable red specks were visible throughout, which were regarded as the exhalent orifices, loaded with blood. No other morbid appearances were observed.

The debate which ensued was of so promiscuous a character that we can only give an outline thereof. In the first place, with respect to *prognosis*, it was contended, that vomiting of blood is *always* to be regarded as of a dangerous nature, whether vicarious or otherwise; and, in support of this opinion, the authority of Chomel was quoted by Dr. Barry. Dr. Johnson and Dr. Copland argued, that the conjunction of dark-coloured, or "melanoid," stools, with hæmatemesis, was to be regarded as an unfavourable sign. In reply to the opinion of Chomel, as quoted by Dr. Barry, Mr. North adduced the opinions of various writers, Pinel, &c., which go to affirm, that, as a general rule, if vomiting of blood takes place in a young and otherwise healthy subject, and the repetition of the discharge gives rise to no debility, then we have no danger to apprehend; and more especially if the discharge of blood be vicarious of some suppressed and accustomed evacuation. As regards the "melanoid" stools, it was remarked, that the colour is a mere adventitious circumstance, dependent upon blood passing downwards and mixing with the excrementitial residue. But, again, it was said, that "melanoid" evacuations are widely different from stools in which blood is simply commingled.

In reference to the *anatomical characters* of the disease, there was, in addition to the evidence of Mr. North's dissection, two cases related by Dr. Ayre, and two by Mr. Calvert, of recent occurrence, in the Middlesex Hospital. In Dr. Ayre's cases, the liver and spleen were (to use his expression) "blanched," and presented no other appearance of disease; in the cases related by Mr. Calvert, with one patient the spleen was three times its natural size, the liver hard and granulated, and the intestines full of blood. The stomach, in the second case, contained no blood; the liver was indurated, and there was a considerable quantity of dark-coloured serum in the abdomen.

As regards the *treatment*, Dr. Barry expressed himself warmly in favour of the "doctrine of determination," and with this view recommended the application of leeches to the anus.* Dr. Johnson spoke of three cases, in which emetics were beneficially employed!—the sulphate of zinc, in one case; and this medicine, Dr. Copland thought, might have proved useful by constringing the coats of the stomach. In case of "melanoid" stools, Dr. Ayre observed, he had found benefit from the exhibition of calomel purges; and, *he* believed, that in such cases, the dark matter proceeded from the liver; that, owing to some obstruction, or congestion, in that viscus, it became loaded with black blood, which was forced into the biliary ducts, and, by them, conveyed into the intestines. Dr. Ayre was sharply handled, in respect to the actual proof of the dark matter in cases of "*melæna*," issuing from the liver; and also, in respect to his assuming that the theory was his own. It was observed, by Dr. G. Gregory, that the term "hepatirrhœa," had very long ago been applied to this disease, by Sauvages, and other writers.

[The discussion, certainly, was one of the most interesting, and the best supported, of any that have transpired during the present season; and we hope that the example set by Mr. North, in the brief and perspicuous manner of relating his cases, will be generally followed. It has been too much the fashion of late, at this Society, for the members to preface the relation of cases with a *peroration* of half an hour's length, in which either mawkish attempts at rounding periods have been essayed, or, the most common-place twaddle has been issued.—Mr. North made some very pointed allusions, as an old member of the Society, on this novel mode of occupying the time of the meeting.

LONDON MEDICAL SOCIETY.

Monday, February 11, 1828.

Dr. Haslam, President, in the Chair.

Nearly the whole of this evening was occupied by the subject of transfusion, ushered in by Mr. Waller, in reference to some observations made at the last meeting on the danger of the operation.

It had been asserted, that transfusion had proved unsuccessful in the hands of Dr. Blundell, but Mr. Waller observed, that only in one case had such an event occurred, and this with a lady at Lewisham, who lived upwards of a week after the operation, and whose death could by no means be referred to it.

The grounds of opposition to this measure were simply these—that it was not *proved* that the patients on whom the operation had been performed would not otherwise have recovered; and many extreme cases of collapse from uterine hæmorrhage were alluded to, which got well under ordinary means. In reply, it was well observed, that it is absurd to ask for *demonstrative proof*, for the same objections might be raised against every remedial measure. It might be said, in cases where inflammation is evidently cured by blood-letting, that the patient would have survived without this means.

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* There was here some good-tempered quizzing on this mode of treatment, it being designated as "*anile*" practice, whilst Dr. Barry, in reply, contended that it was "*fundamentally*" correct.

At the conclusion of the evening, Mr. Kingdon requested the information of the members on the treatment of a case of eruptive disease of the leg at present under his care, and which had hitherto obstinately resisted the various means employed. The patient is a stout lady, 50 years of age, and has this most remarkable idiosyncrasy—that every kind of *vegetable*, except a mealy potatoe, produces the most distressing dyspepsia; even vegetable infusions have this effect. The local disease consists in an erythematous state of the leg, from the foot upwards, the cuticle being entirely denuded, and there being a constant exudation of acrid serum.

The employment of *yellow wash* (a solution of oxymuriate of mercury in lime water) was recommended on the ground of experience in its utility.

MEDICO-CHIRURGICAL SOCIETY,

February 12, 1828.

B. Travers, Esq., President, in the Chair.

The Chairman informed the Society, that he had been disappointed of a paper from Mr. Brodie, on a highly interesting subject, viz. injuries to the head, Mr. Brodie being indisposed; he hoped, however, that at the next meeting the paper would be ready.

A letter from Dr. Dobson, of Greenwich, to Mr. Lawrence, in answer to some questions respecting the practice of making punctures in erysipelas, was then read to the Society.

Dr. Dobson stated the reasons which first induced him to resort to puncture in the treatment of erysipelas, and the great success with which the treatment had been attended. In several hundred cases punctures had been used with an almost uniformly good result, this mode having failed in two cases only. Dr. Dobson makes a puncture from one-tenth to one-eighth of an inch (varying, however, both in size and depth, according to the nature of the part attacked) in all cases of erysipelas, whether simple, phegmonous, or traumatic, Dr. Dobson accompanies this practice with the use of purgatives and diaphoretics, and sometimes stimulants, but considers the advantage derived from the local treatment, of the highest importance.

Mr. Earle said, that not having been present at the former meetings of the Society, when the subject of erysipelas was so fully discussed, he might probably enter on ground which had already been trodden, but he hoped the statement he had just made, would be considered as a sufficient apology, if he touched on topics already considered. Although he had no positive evidence, *pro* or *con*, the plan of treatment recommended by Dr. Dobson, still there was one assertion in the paper just read, which he could not allow to pass unnoticed. Dr. Dobson had stated, (he believed,) that in all kinds of erysipelas, the practice of puncturing was applicable, and with him had been successful. Now he was certain, from the observation of a great number of cases of erysipelas, which had come under his care at the hospital, that erysipelas was consequent on constitutional disturbance, the removal of which was alone sufficient to put a stop to erysipelas. He found the purging system extremely beneficial in many cases, and alone sufficient to remove the complaint; he generally gave a combination of tartar emetic and calomel, (a grain of the former to five grains of the latter,) followed by the common senna purge of the hospital; he could not help thinking, that a plan of treatment so purely local as that of Dr. Dobson, must fail in cases where the complaint was dependent on disorder of the digestive organs.

Dr. Johnson concurred entirely in what had fallen from Mr. Earle on the connexion of erysipelas with constitutional derangement; in fact, he believed that in nine cases out of ten, the development of erysipelas was preceded by fever, and a state of the system indicating derangement of the secretions on which erysipelas supervened. He was afraid, from what had been recently said on erysipelas, that the attention of the young surgeon would be diverted from the constitutional treatment of the complaint, and that he would be induced to look on it too often merely as a local disease. He approved of incisions, punctures, or the application of leeches, as local auxiliaries in the treatment of erysipelas, but in the great majority of cases, the complaint is not solely local, but dependent on constitutional causes, and requiring constitutional treatment.

Mr. Lloyd observed, that from the opinions which were entertained in the school where he was educated, he was biassed in favour of the connexion between local complaints and constitutional causes, and, consequently, the dependence of erysipelas on derangement of the general health; but he had seen many cases where the complaint was local, and only admitted of relief and cure by local measures. Since the practice of Dr. Dobson was introduced to the notice of the Society by Dr. Babington, he had tried it in some cases with the best results not only in erysipelas, but in other cases, as in old ulcers of the legs. [Mr. Lloyd then detailed, with considerable clearness, four cases, two of erysipelas, and two of ulcers of the leg, in which the practice of Dr. Dobson was completely successful.]

Mr. ALCOCK said, that the practice of treating ulcers by incision, so far from being new, was known to Ambrose Paré, and was at the present time very generally adopted by M. Lisfranc at La Pitié in Paris.

Mr. EARLE and Mr. LLOYD explained.

Mr. LAWRENCE said, that since the subject of the treatment of erysipelas was discussed within these walls, a case had fallen under his notice, which would be particularly interesting to medical men, as they were the sufferers from the complaint to which he alluded, viz. punctures from dissection. Dr. Dill, the house surgeon of the Fever Hospital, in opening the body of a female who had died of peritonitis, (and he was particular in mentioning the complaint, as it was observed, that punctures received in the examination of cases of this nature, were frequently followed by the worst consequences,) injured the back of the hand. On the following day the part was red and swollen, and there was also a tension or tightness of the hand, and the glands in the axilla were enlarged. An incision was made, by Dr. Dill's own wish, into the part, by which a small artery was divided; a good deal of blood was lost, but the relief to the part was almost immediate. Mr. Lawrence saw the case two days after the accident, when the skin of the part was beginning to recover its healthy appearance, and the swelling of the hand, as well as of the glands, had subsided. He believed Dr. Tweedie was in the room, who saw the case sooner after the injury than he did, and who would state any particular which he might have omitted.

Dr. TWEEDIE observed, that the case had been accurately detailed by Mr. Lawrence; there was only one point of the treatment omitted, viz. that after the incision had been made, the part was well leeched and fomented.

Mr. TRAVERS inquired, what was the nature of the injury, and whether a pustule had made its appearance in the part affected.

Dr. TWEEDIE replied, that it was not certain whether the part was lacerated by the edge of one of the ribs, or whether there was a small abraded surface on the back of the hand at the time the gentleman made the examination. A distinct pustule had made its appearance before the incision was made

Dr. GREGORY, who had also seen the case, confirmed Mr. Lawrence's and Dr. Tweedie's account of it.

The Society then adjourned.

GUY'S HOSPITAL.

FATAL TERMINATION OF MR. B. COOPER'S CASE OF AXILLARY ANEURISM.

The patient on whom Mr. B. Cooper performed the operation of tying the subclavian artery, as recorded in the 224th Number of this Journal, has, at length, sunk under repeated hæmorrhages. The operation was performed on the 4th of December, under the clearest prospects of success, but suppuration ensued in the sac, and subsequently, the fatal bleedings took place, which terminated existence on the 8th of February.

The parts are now under a careful process of dissection, and therefore, we cannot speak of the immediate cause of hæmorrhage; but, when the examination is completed, we shall enter into a full statement and consideration of this case.

ERUPTIVE DISEASE OF THE FOREHEAD, ASSUMING A PHAGADENIC CHARACTER, AND TERMINATING FATALLY.

THE following case is entitled in Mr. Morgan's book—*Phagædenic Herpes.*

J. D. ætat. 26, of spare habit and cachectic appearance, was admitted into Luke's Ward on the 31st of October, under the care of Mr. Morgan. He said that he had been affected with cough, dyspnœa, and occasional pain at the chest, for upwards of twelve months; that, about half a year previously to admission, some pills were administered, which caused ptyalism, and three years before, he had taken mercury for several weeks, on account of a sore on the glans penis.

The forehead was partly covered with an herpetic eruption, and there was a blush of dark-coloured inflammation to some extent around. The disease made its appearance about ten days before admission: on the arm was a puffy swelling, evidently containing fluid, but the integument was free from discolouration, and there had been no pain felt at this part. The man had frequent cough, with glairy expectoration, and was very much debilitated.

Pills of conium, with ipecacuanha, were prescribed, and the dilute sulpuric acid, with the infusion of cascarilla; full diet. The abscess was opened, and a small quantity of ill-conditioned pus discharged.

On the 3d of November, the eruption on the forehead had greatly extended, and the dilute nitric acid lotion was directed as a topical application. Three grains of the sulphate of quinine were ordered to be taken three times a day, in addition to the former medicines.

A report on the 10th states, that the eruption at that time occupied more than half the forehead, but on the 17th it had spread so much, as to extend from the coronal suture to the upper eyelids, which were much swollen. The vital powers too, were now evidently flagging.

From the 17th to the 29th, when the patient died, no important change took place; the whole eruptive surface had a sloughy appearance, with a thin offensive discharge; the eyes had become closed from tumefaction, and the poor fellow was, eventually, a miserable object. Brandy and wine, and other active stimulants, were freely employed, but in vain: a short time before death, he became delirious and exceedingly restless.

The body was inspected about twelve hours after death, when it was found that the fore part of the cranium was deprived of its proper covering, to some extent, the bone being, in some parts, rough. Examining the inner surface of the skull, a projection of about the size of a pea was observed near to the vertex, and within a short distance of this point was a large sulcus, in which a vein was passing, and the bone here was so thin as almost to be transparent. There was copious serous effusion beneath the arachnoid, and also in the ventricles, the plexus choroides being blanched.

In the thorax, there were old adhesions of the pleuræ, an abscess of considerable size, with a distinct cyst in the upper part of the right lung; other small collections of pus, and appearances of tuberculous matter in various parts of the pulmonic substance.

OPERATIONS.

Lithotomy, by Mr. Key.—This operation was performed on Tuesday last; the patient, a child about three years and a half old. The calculus was of the size of a marble, flattened; and there were no particular circumstances attendant upon the operation, which was effected with facility throughout all its steps.

Removal of a Tumour from the Arm.—This was performed by Mr. Morgan; the patient was a middle-aged woman, and it was a firm tumour attached to the tendinous expansion on the outer side of the humerus, at a short distance above the condyle.

Ectropium of the upper Lid.—In this case where the eversion of the lid was dependent upon a contraction of the skin of the lid, (a consequence of former disease) the thickened tunica conjunctiva was first removed, then the cicatrix was cut through, and, lastly, a triangular portion of the cartilage was removed. The operation was performed by Mr. Morgan.

ST. GEORGE'S HOSPITAL.

CASE OF SEVERE COMPOUND FRACTURE OF THE THIGH, ENDING FATALLY FROM GANGRENE.

J. H., a muscular young man, about twenty-five years of age, was admitted into this Hospital, under the care of Mr. Rose, on Saturday evening, Jan. 26th, with a compound fracture of the left thigh, occasioned by a woolsack having fallen upon him.

The accident happened about an hour and a half previously to his admission, and on his way to the Hospital he lost an alarming quantity of blood. On examination, the femur was found to be exceedingly comminuted about three inches above the condyles; it was also discovered that the fracture extended into the knee-joint. The integuments were wounded just over the site of the fracture, but the bone did not protrude. He was very much exhausted when admitted. The limb was placed on the inclined plane; the wound was dressed simply, and *a tailed bandage applied*; cold lotion was ordered to be constantly applied to the thigh, and ice occasionally.

27. The man has had a very restless night; the bowels are costive; tongue dry; and he complains of great thirst; his pulse is 90, and more expanded. The thigh is considerably swollen. He was bled to eight ounces, after which the pulse rose to 100. Ten o'clock, P.M., is still very thirsty; the tongue continues dry, and the bowels have not yet been moved; the thigh is very hot and tense; he was bled to eight ounces when syncope came on, and he was directed to take a senna draught every three hours until the bowels were moved. The cold lotion to be continued to the thigh.

28. Noon. The bowels have been moved, and he has had a quiet night; the pulse is 120; he complains of a good deal of pain in the thigh; the heat and tension of which still continue; ordered to continue the lotion.

10 P.M. The man has been very restless and incoherent. The countenance is pale, the tongue dry, and there is an emphysematous feel about the thigh; the left foot is very cold, and was wrapped in flannel; he was ordered to take thirty minims of Battley's nostrum, and the like quantity of compound spirit of æther, in camphor julep.

29. Two P.M. Has had some sleep since three o'clock this morning; the pulse 125, and regular, but weak; the inside of the leg, as high as the calf, is discoloured, and there is a large purple vesication on it.

11 P.M. The mortification has extended to the knee, and there are several vesica-

tions on the outside of the leg, the pulse is 140; he is now quite free from pain, and has had some sleep.

30. One P.M. The countenance is yellow; the pulse is 130, and intermits occasionally; he has hiccup, and has vomited bilious matter. The thigh is discoloured in patches, as high as the groin.

Vesp. The discoloration has now reached the ilium. The emphysema has extended up the left side of the abdomen, which is very tense and tender.

31. The poor man expired this morning at two A.M., being quite sensible to the last.

It was surmised, from the circumstance of profuse hæmorrhage having occurred as a consequence of the accident, as well as from the mortification ensuing, that a lesion of the great blood-vessels had taken place. But we learn that upon a post-mortem examination of the limb, there was no such injury to be detected.

ST. BARTHOLOMEW'S HOSPITAL.

SEVERE INJURY TO THE HEAD.

William Deacon, aged 30, was admitted into Harley's Ward, Jan. 23, under the care of Mr. Earle. He had fallen from a cart on his head, and had received a contused wound of the scalp, over the upper part of the left parietal bone. He was taken up insensible, and about twenty minutes after the accident was bled, when he became more sensible, and answered questions. When brought to the hospital, he was very comatose, and did not answer any questions, although he appeared sensible of what was said and done to him. His breathing was natural; pulse regular, and rather feeble. In a few hours his pulse rose, and became full and hard; he was bled to thirty ounces, and a dose of calomel and jalap administered. His head was shaved, and cold cloths constantly applied.

In the evening, his pulse again becoming full and hard, twenty ounces of blood were taken from the temporal artery.

24. He had slept but little during the night; at times he was very restless, and endeavoured to get out of bed. This morning he appeared more sensible, and put out his tongue when desired; his pulse was full and hard, and his skin hot. Venesection ad ℥xiv.

25. Was, at times, very restless; pulse frequent, full, and hard; skin hot and dry; convulsive motions of the right side of the face, and of the right arm and hand, were now observed; these attacked him in paroxysms, and at short intervals. He was cupped to sixteen ounces from the temples, and a blister was applied to the nape of the neck.

26. The convulsive paroxysms of the face and arm were more frequent; his pupils were slightly dilated, but contracted freely on exposure to light; respiration not difficult nor stertorous; pulse 130, and sharp; he passed his fæces involuntarily.

Mr. Earle was of opinion that these symptoms were attributable to pressure on the brain, and arose from the presence of matter between the cranium and dura mater; and after having examined the wound, which was in a sloughy state, with a portion of bone, about an inch in extent, denuded; he proposed the operation of trephine; this was acceded to by Mr. Vincent and Mr. Stanley; but Mr. Lawrence, who saw the patient shortly afterwards, was decidedly averse to it. The wound of the scalp, however, was enlarged, and the trephine applied. On sawing through the bone, considerable bleeding took place from it; there was effusion beneath the bone, and the dura mater was found perfectly healthy; the brain did not pulsate. In the evening he became very restless; the convulsive motions of the arm and face were somewhat diminished, but the muscles of the tongue were spasmodically affected. His pulse was frequent and hard. Venesection ad ℥xvi.

27. Was very restless until two o'clock this morning, when he became more quiet, and had some sleep; the convulsive paroxysms were less frequent, and he was more sensible, though not able to make replies to questions. His pulse was frequent and feeble. Towards the evening he had delirium; his pulse became more feeble, respiration hurried; extremities cold. He died at two o'clock on the following morning.

Examination, eight hours after death.

On removing the dura mater, about an ounce of coagulated blood was found on the superior part of the left hemisphere of the brain, and nearly opposite to the perforation which had been made in the skull; the brain was somewhat flattened in this situation; the dura mater appeared healthy. The anterior inferior angle of the left parietal bone was fractured, and at the corresponding part of the brain blood was effused into its substance, and formed with it a dark coloured pulpy mass about the size of a walnut; the surrounding cerebral substance was softened. The pia mater was very vascular, and thickened; no serous effusion beneath the arachnoid, nor increased quantity in the ventricle.

THE LANCET.

London, Saturday, February 16, 1828.

The public have heard a great deal of late of the disturbed state of the medical profession; or, perhaps it would be more correct to say, that frequent attempts have recently been made to persuade a small portion of the public, that the medical profession is in a disturbed state; for the intelligence has been conveyed through too narrow a channel to become matter of notoriety. The truth is, that these complaints of the agitated state of our profession, are founded, not in delusion, but in an attempt to delude. The great body of the profession was never more tranquil, never better satisfied with the state of public feeling, as regards medical interests; never more strongly assured that a change is at hand, which, while it will guarantee the public safety, will return independence and respectability to medical practitioners, than it is at the present moment. The *prestige* of distinguished names is at an end. The public demand other securities for the ability of medical practitioners, besides those which are furnished by the possession of office, obtained, avowedly, in many instances, through the influence of corruption, or by the written certificates, or oral testimony of men, whose interest it is to perpetuate a corrupt system. We will put it to any man who knows what the state of the medical profession was *four years ago*; that is to say, who knows what the state of the profession was, when there was no free medical press; and when the thing called a medical press was under the conduct and control of a few imbecile, corrupt, and benighted possessors of Scotch diplomas. We will ask any, and every man, who possesses this information, what, at that time, would have been the issue of a trial, in which damages might have been sought to be recovered against a *hospital* surgeon, on the ground of professional ignorance, and in which six hospital surgeons, of undoubted, because, *at that time, unquestioned*, ability and integrity, might have borne concurrent testimony to the groundlessness of the imputation? Would any individual, *at that time*, have had the smallest chance of recovering damages under such circumstances, against the united testimony of six hospital surgeons, with Sir A. Cooper and Mr. Abernethy at their head? What has produced this change in the state of public feeling with regard to the medical profession, of which state of feeling there can be no surer criterion than the delivery of honest, uncompromising verdicts, in direct opposition to what would once have been considered the best medical authority? It is a *free medical press* which has produced this change; it is the influence of the "reptile press," as this mighty engine has been designated by Sir A. Cooper, with his wonted philosophical acumen, which has wrought this change in the state of public feeling. The public know that hospital surgeons are, in general, indebted for their situations, not to superior ability, but to corrupt influence; and we find, accordingly, that juries set a certain value upon the testimony of hospital surgeons, who come down in shoals to a court of justice to give evidence, calculated to screen a brother corruptionist from the consequences of his unskilfulness. We do not, nor did the jury in the case to which we allude, suppose these hospital surgeons capable of wilfully perverting the truth; but we believe, and the jury, we doubt not, believed, that the interests of those surgeons are so bound up and connected with a corrupt system, that they were incapable of giving unbiassed evidence, and of forming a fair estimate of the merits of the case.

We regret that we have no space this week to give a full report of one of the most important causes, with reference to medical interests, that has occurred for many years in a court of justice. The outline of the case is briefly this.:—

An action was brought in the Common Pleas on Wednesday last, by a gentleman named Rolfe, against Mr. Stanley, one of the surgeons of St. Bartholomew's Hospital, to recover damages for alleged neglect and want of skill, in the treatment of an injury to the knee-joint. It appears, from the evidence, that the defendant mistook a piece of flint under the integuments, for a portion of fractured patella; the piece of flint is of rather a curious shape, and we will endeavour next week, by means of an engraving, to give our readers an idea of its dimensions and general appearance. Being fully persuaded that the piece of flint was a portion of fractured bone, Mr. Stanley applied bandages and splints to the joint. The flint was retained in the joint for a period of nearly eleven months, the patient suffering great agony during the whole of that time, when it was extracted by one of those despised and degraded individuals, belonging to a body which has been held up to public contempt, by hospital surgeons and Aberdeen doctors, as a subordinate department of the profession. On the part of the plaintiff, the only evidence adduced was that of his father, and two general practitioners, Mr. Garman and Mr. Lilly; while, on that of the defendant, there was an array of Bats, such as was never before seen congregated in a court of justice, for the purpose of mystifying and overshadowing the understanding of twelve honest jurymen. Against the irresistible evidence of facts, the testimony of Sir A. Cooper, Abernethy, C. Bell, Green, Brodie, and Travers, weighed as dust in the balance. The jury returned a verdict for the plaintiff, damages 30*l*. Again, we say, the *prestige* of distinguished names is at an end; a free press has annihilated the influence of the Bats and corruptionists, and the period cannot be far distant, at which we may hope to see the profession established upon a basis alike beneficial to the practitioner, and to the public. We shall present the profession with an accurate report of the case, of ROLFE *v.* STANLEY, in our next Number.

THE character of the surgical cock-sparrow for judgment, discrimination of disease, and operative talent, has been sufficiently established by his *singular* operations in the celebrated *singular variety* of hernia, to which we lately called the attention of our readers. If, however, the smallest doubt on these points could still exist in the mind of the most sceptical, the case of trephining, recorded at page 720, would remove it. A country practitioner, of considerable experience, who had walked into St. Bartholomew's on the morning when the operation was performed, in the hope of gleaning some particles of information, by following in the train of those *pure* surgeons who cultivate that celebrated field of science with so much success, saw this patient, witnessed the consultations previous to operating, and was quite astonished at finding that the use of the trephine was proposed in the case. He saw a patient sensible, breathing naturally, with pupils in the natural state, and free motion of the iris, with convulsive twitchings of the right side of the body, rapid and feeble pulse; and he heard Mr. Earle declare that the man's symptoms were those of compression, and required the operation of trepanning! He found Mr. Vincent and Mr. Stanley coinciding in this opinion!! The instruments were sent for; in the mean time Mr. LAWRENCE entered the Ward, and was desired to see the patient. When he had carefully examined the man, our Reporter was very anxious to hear his opinion. Mr. LAWRENCE said he thought the man would certainly die, and that, independently of this, *he could not observe a single indication for the operation.* Mr. Earle, who did not seem to relish this opinion, endeavoured, by various questions, to procure a statement less decidedly hostile to the measure on which he seemed to have set his mind; but his colleague was very obstinate, and would not allow that trephining could be of any use to a *dying man*. Mr. LLOYD entirely concurred in opinion with Mr. LAWRENCE. Our Reporter, now observing Mr. LAWRENCE leave the Ward, followed by a number of Students, left the patient, concluding that common sense had prevailed, and that the idea of operating would be abandoned. He learned afterwards, to his great astonishment (but he swears that nothing of the cocksparrow's achieving shall ever astonish him again), that this poor dying fellow was actually trepanned; he was not, however, surprised to find that the operation turned out perfectly useless, and that the unfortunate patient quietly escaped from the hands of his surgeon, in just thirty-six hours after he had enjoyed the benefits of his sagacity and skill!! Again, Little Harry, we say, Bravo, Bravo! Proceed thus, and thou wilt soon carve out for thyself a reputation fit for a bat of the first magnitude: thou shalt no longer be a cock-sparrow, but a vampire; the "singular" VAMPIRE BAT of Smithfield.

IN the last fasciculus of Dr. Johnson's Journal, there is a report of the proceedings which took place at the Medico-Chirurgical Society on Tuesday, Jan. 22, containing so many inaccuracies, as to excite the notice and displeasure of the governing body of the Society. On the appearance of the Journal in question, the secretary wrote to inform Dr. Johnson, that the mis-statements contained in his report of the proceedings of the Society, would be brought before the council at their next meeting, so that he might not be taken by surprise when the time of meeting arrived,--Dr. Johnson being himself a member of the council.

Our readers will recollect, that the publication of the reports of this Society was formerly condemned by Dr. Johnson in the most unqualified terms, and now he publishes them in such a manner as to call for the marked disapprobation of several of the leading members of the Society.

It is generally understood, that the Society is favourable to the publication of its reports, in the same way as the reports of other societies and public bodies are given; but it feels indignant, (and naturally too,) when its proceedings are reported not with a view to scientific improvement, but for the indulgence of the reporter's own vanity, by the unfair representation of the opinions of those who may chance to differ from him. The Society has consulted its real interests, in allowing the reports of its proceedings to be published; but, then, in justice to the Society as a body, and its members individually, those reports ought to be given with impartiality and accuracy.

ROYAL COLLEGE OF SURGEONS.

THE STAMMERING ORATION was delivered on Thursday last, by Sir William Blizard. At present, in the way of commentary, we shall merely state that Sir William has reached the age of EIGHTY-EIGHT, and, consequently, the reader will not be surprised to find that the following passage, we know not what else to call it, may be regarded as an accurate speciman of the manner in which the "ORATOR" endeavoured to instruct and amuse his audience.

"The a-a-a-a-na-lo-lo-gy—analogy (suddenly endeavouring to correct himself) eu-eu-eu-lo-lo-lo-gy—eulogy, of such a g-g-g-ni-ni-nius—genius as Hunter, demands a power of e-e-e- expression, and and ac-ac-quiz acquaintance with his discourses, e-e-e, *et cætera*." The audience manifested much dissatisfaction and impatience. Sir A. Cooper did, indeed, restore good humour on one occasion, by wishing "that all the members might be able to read as well as Sir William, at the age of eighty-eight." Sir Astley should bear in mind, that an appeal to the compassion of the audience on account of the Orator's senility, is but a lame apology for the degradation of the College, and the disappointment of its members.

The Good Nurse, or Hints on the Management of the Sick and Lying-in Chamber and the Nursery. Second edit. Longman and Co. 1828. 12mo. 387.

THAT a good nurse is often better than the doctor, is a homely observation, which, like most other homely observations, is founded in experience and good sense. The importance of the duties which devolve on the attendants of the sick did not escape the notice of the father of medicine. His very first aphorism glances at this subject, and he frequently recurs to it; but it s sufficiently obvious, without the authority of Hippocrates, that vigilance and judgment on the part of nurses are fully as essential to the recovery of patients, as skill and attention on the part of medical advisers. We have had tomes of medical disquisition since the days of Hippocrates, which, if they were reduced to their quintessence, would hardly furnish matter for the little volume which is now lying before us; but, though the duties of nurse and physician are of co-ordinate importance, this little volume is almost the first attempt which has been made at conveying any practical information to superintendents of the sick chamber. The "Good Nurse" is the production of a female, who has communicated to the public the results of her experience in a department, with the duties of which she discovers a minute and practical acquaintance. To the more respectable and intelligent class of persons who undertake the management of the sick chamber, this work may be recommended as an excellent manual; and there is, besides, a considerable portion of the book devoted to details connected with the management of the lying-in chamber and of the nursery, which mothers of all classes may consult with advantage. This part of the "Good Nurse" is pregnant with interest and instruction.

Our fair authoress might well have relied on the intrinsic merit of her volume as a passport to public approbation; but she has also thought proper to fortify her pretensions by printing certain recommendatory letters which she has received from the sister of Sir H. Halford, Sir A. Cooper, Dr. Babington, Dr. Paris, &c. Such of our readers as are curious to see these specimens of epistolary panegyric must consult the volume. The public is not wholly unacquainted with Sir A. Cooper's style, as he has had occasion from time to time to address the conductors of the "reptile press." The worthy Baronet is always excellent, as far as "Sir" or "Madam." As to Dr. Paris, he seems to have felt the necessity of addressing the fair writer in his choicest vein of metaphor. There is a passage about "entwining a laurel wreath," which, if the publishers have any sagacity, they will transfer to their advertisements, or to the title-page of the book, with "*judicium Paridis*" for a motto. The "*spretæ injuria formæ*" will do for the engraving, which, whether it be meant for the *beau idéal* of a good nurse, or for the portrait of a living woman, reflects but little credit on the artist. He has produced a sketch, of which the features are not sufficiently in keeping with the gentleness and benevolence which appear to mark the character of the writer.

The minute details in which this work abounds, render it difficult to extract any portion of it, which may give the reader a general notion of its contents. The following passage is from a chapter on the salutary effects of sleep:—

> "At any time the patient feels disposed for rest, the most perfect stillness should always prevail; neither should nurse continue moving about, further than to put the

feathered end of a quill through the keyhole, that when this signal appears, no one may attempt opening the door. The room being early closed is important for the patient's settlement to sleep before the night is advanced, as it is considered that the sleep which we enjoy before the morning commences is the most beneficial. Should the patient not be favoured to sleep, restlessness soon gives an inclination to moving about, when nurse should soothe and recommend stillness; but if fever happens to be the disease, then reasoning is quite in vain; no philosophy can resist the impulse to change the position; the desire and hope of cooling the body and limbs, from lessening the surrounding heat, by admitting a portion of air, is quite irresistible. In that case, all that nurse can do, is to use those means which are in her power; first, giving some cooling liquid, such as toast and water, or raspberry-vinegar and water, or lemonade; raising the patient on the pillow after turning it, that it may be more refreshing; sponging the hands and feet with lukewarm water; opening the curtains to admit a greater portion of air; impregnating the surrounding atmosphere with some volatile essence, by means of the reviver,* or disperser; thinning the bed-clothes, as fever is exceedingly accelerated by artificial means, and disease materialy augmented by wrong management. The nurse should be gentle, exercising every possible tenderness while resorting to these salutary attentions. A sympathising word now and then is all that should be said; she should be extremely careful not to discover alarm or impatience. So much depends on her good judgment and kind behaviour, that if she neglect her duty, medicine will not have the same beneficial effect, nor the patient receive the same comforting relief. The heat of the room should be regulated by a thermometer, an important appendage to the sick chamber; as attention to this point is of consequence to the well-being of those afflicted with disease, especially in fevers and nervous cases. Neither can persons either in sickness or health obtain sleep in a room not properly ventilated, and the circulation of the air impeded by beds loaded with drapery and with heavy covering. The air of a room should be frequently changed by means of either the door or window, agreeably to the season of the year. Close and heated rooms cause irritation of the nerves, with the addition of adding to the heat of the blood."—pp. 87-9.

The following observations apply to the conduct to be pursued towards patients in a state of convalescence.

"As recovery advances, the patient may resume the usual dress, dismissing the costume of the sick chamber; this change gives additional pleasurable feelings. The attention to personal cleanliness is very important: having the body sponged over with either tepid or cold water, (the state both of the weather and the patient must be consulted,) and afterwards having friction used freely, is one among the best of restoratives; it gives a portion of exercise without fatigue, and prepares the frame for one of its most important secretions, by cleansing the surface from any impurity. This operation produces the most animated and delightful feelings, giving vigour to both mind and body. It is to be regretted that the beneficial effects of practising daily ablution are not better understood. Those who have been early accustomed to using water freely on quitting the bed, cannot forego the pleasure it affords; and this plan not only aids in restoring health, but is one of the best means of preserving it. While the invalid remains in a delicate state, a glass of ass's milk will be found salutary. It should be rung for on the patient waking; this restoring draught will enable the convalescent to go through the fatigue of dressing, without suffering from exhaustion. If a patient is much altered, a looking-glass may do harm; that must depend on the state of the mind of the patient; the beautiful might feel mortified, and the timid might feel alarmed. Personal neatness has a peculiarly happy effect on most minds. The Spectator observes, a *letter* will discover signs whether the writer was well-dressed. At a moment when we stand in need of every auxiliary, we should not neglect one of so much importance as that of attention to appear agreeable; nurse must exercise her care, as well as taste, in this business. After the operation of sponging the frame is over, let the under-dress be so often changed as to be delicately clean; when, putting on a dressing-gown, nurse should commence by brushing the hair, using either powder or some fine bran; this cleans and sweetens the hair, which is affected by perspiration; then simply twisting it up, without the present fashion of *poodling* the head, let her proceed to clean the mouth, using the scraper for the tongue, brushing the teeth, when the patient should gargle the throat with just a slight dash of vinegar or brandy in the water. This cleanses and gives the feeling of health. When all this business is over, lest the patient should feel fatigued, a clean dimity wrapper put on to breakfast in is to be preferred, as giving the least trouble; for in doing that which is positively necessary to promote the operations of nature, we must not exhaust. If the person is made clean, and the dress the same, the form of it is of little consequence. Indeed, either a dress much trimmed, or one that requires much care, is improper; for those persons who are in a state of weakness from recent indisposition, a simple dress is the best, also from a recumbent position several times in the course of the day (particularly after meals) being indispensably necessary: rest and indulgence in this situation are important; and in proportion to the exhaustion which has been suffered, in the same ratio must be the rest and indulgence given to the convalescent. As soon as the dressing is completely finished, the patient should move into an adjoining room, where breakfast should be prepared. Dr. Fothergill advised souchong tea made with milk, as a nourishing beverage, and that eaten with dry toast; he considered it was more nourishing, and remained longer in the stomach; when more advanced, a mutton chop, with the fat taken off, lightly broiled, with a small portion of pepper and salt, with a piece of bread only, and one cup of souchong tea, is a most excellent breakfast. The fine lady may venture to take this breakfast without alarm; as instead of its diminishing her delicacy or bloom, it will give her cheek a more interesting tint than all the cosmetics in Delcroix' shop; the bloom and hue of health are far more engaging than any colour we can obtain from art."—pp. 131-3.

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* A bottle with a perforated silver top, for more conveniently dispersing the volatile spirit.

Mothers should purchase the book; for there is no woman who deserves the endearing appellation of mother, who will not be interested and instructed by its perusal. The authoress has, moreover, introduced a number of devotional remarks, which reflect great credit upon her piety, but which add rather to the bulk and price, than to the practical value of the volume. Frequent appeals to the Deity, and constant assumptions of the special agency and interposition of Providence, in the ordinary transactions of human life, are never very judicious, and are altogether misplaced in a work of this kind. Philosophically speaking, the fall of a leaf, and of an empire, may, for aught we know of the matter, be events of equal importance, or insignificance, to the great Author of nature; and the application of a blister or a galbanum plaster to the skin of a humble individual, may be as appropriate an occasion for invoking God's blessing, as the anointing of a royal cranium with archiepiscopal oil. But the vulgar are not philosophers; their measure of meanness or magnificence is regulated by the imperfect standard of human associations; and we cannot help reminding the fair authoress, that the cause of piety, which we doubt not she is sincerely desirous of promoting, is rather weakened than advanced, by the habit of associating the name of the Deity with mean and familiar objects, and of invoking his aid and co-operation on light and trivial occasions.

There is a great deal of excellent information to be found in this volume, respecting the duties of wives on becoming mothers, and the care and management of infants and young children, of which no extracts for which we could afford space, would convey an adequate idea.

We had almost forgotten to mention, that the "Good Nurse" is enlivened with a copy of verses, addressed to the authoress, evidently from the pen of that tuneful medical Melibœus, Roderick Macleod, physician and poetaster to the firm of Messrs. Longman and Co. Here they are:—

"The leaves are quite withered
Bestrewed on the ground,
Nature's charms are all vanished by stealth;
A wreath of green bays,
Famed Hygeia has found,
To crown her in honour of health."

By the way, we regret to observe, that a single application of THE LANCET to Roderick Macleod's poetry seems to have silenced his Doric reed for ever.

Introductory Lectures to a Course of Anatomy, delivered by the late John Barclay, M.D., with a Memoir of his Life. By GEORGE BALLINGALL, M.D., &c. Edinburgh, 1827. p. 169.

THOUGH ranking subordinate to many kinds of writing, there are few of them which require more judgment, and talent of a peculiar cast for their successful execution, than biography, which imposes on its author the double obligation of attending to his own reputation, and that of his subject; neither of which, perhaps, would have been injured by the omission of that portion of the present volume, designed for a memoir of Dr. Barclay's life. It is not enough that the events in an individual's life, from the baptismal registry to the epitaph, are faithfully detailed; they must be narrated in the spirit of the original, and accompanied by sentiments commensurate with, and congenial to, their nature and importance. We must be admitted by the key of appropriate description into his society, be made acquainted with his habits of thought and action, see him in his public and private character, in his studious and social hours, and have his weaknesses as well as his greatness placed before us, in order to enjoy the charm and profit by the moral, which personal history, when competently drawn, never fails to present to the reader. Besides ability for characteristic delineation in the writer of this species of composition, incidents of sufficient importance to command attention are essential to its perfection; but which are generally wanting in the calm career of the professors and practitioners of the healing art. Hence we have had as few authors who excel in this line of writing, as there have been subjects susceptible of its application. Much safer, therefore, would it be for the fame of those, the "even tenor of whose way" supplies no food for wonder, that the public be left to imagine their likeness from the perusal of their works, than to have this generally magnified vision of their identity dissipated by the public exhibition of a matter-of-fact portrait, executed by an unskilful hand. In this class of writers and subjects of biography, we are inclined to include Dr. Ballingall and Dr. Barclay, whose tranquil passage through life, appears not to have been interrupted by any of those obstacles to success, or marked by those triumphs over difficulties, which please by their approximation to the feats of romance; while those qualities for which he was so eminently conspicuous have evaporated in the hands of his historian. As many beyond the pale of Dr. Barclay's immediate friends may not be acquainted with even the few facts relating to him, placed on record in this memoir, we shall give an abstract of them, for the gratification of public curiosity.

"Dr. Barclay was born in the year 1759 or 60, at the farm of Cairn in Perthshire, and was removed to Strageath, in the same county, at a very early age, where he received the rudiments of his education at the parish school of Mulhil, under a Mr. Thompson, a teacher reputed for sound classical attainments. In 1776, or at the age of seventeen, he entered as a Bursary student, obtained by competition, in the Old College of St. Andrew's, where he evinced signs of future eminence, by a rapid proficiency in the Greek language, Euclid's Elements, and Conic Sections. During his residence here, which occupied five sessions, he also acquired a competent knowledge of Hebrew, and composed for his own instruction, or, perhaps, with a view to publication, what he called a History of all Religions, being then destined for the church. Of this work no remnant could be discovered among his papers after his death, having prudently, perhaps, committed it to the flames—a loss scarcely to be regretted, as, in all probability, he followed the example of all other controversialists, from Chrysostom to Dr. M'Crie, by first showing the weak points in every man's religion, and concluding with the orthodoxy of his own. Having completed his college course at St. Andrew's, he was licensed as a preacher by the Presbytery of Dunkeld, became a tutor in the family of a Charles Campbell, Esq., of Aberuchill, and, subsequently, in the same capacity, in that of Sir Charles Campbell, of Loch Dochort, where he displayed a taste for natural history, by some observations made on insects during his hours of leisure. With the latter gentleman's two sons, his pupils, he removed to Edinburgh, at the commencement of the winter session of 1789. Here his attention seems to have been divided between the discordant pursuits of the pulpit and the dissecting-room, having commenced the study of medicine about this time, and also assisted some of his clerical friends in town, in the discharge of their spiritual functions. Anatomy, however, having more charms for him than divinity, he soon devoted himself exclusively to its cultivation; and, having made sufficient progress in the science to qualify him for the task, he shortly after became assistant to the late Mr. John Bell. In 1796, or in seven years from the commencement of his professional studies, he graduated as doctor of medicine in the University of Edinburgh, having defended a thesis "De Anima, seu principio vitali," the latinity of which appears to have been highly commended, and its subject, as will be perceived, to have claimed his earliest and latest attention. On his graduation he visited London, where he studied for twelve months under a Dr. Marshall of Thavies' Inn; provided himself there with some preparations, partly purchased and partly dissected by his own hands; returned to Edinburgh, and commenced at once in the capacity of an anatomical and surgical teacher. His success at first, according to his own account, was by no means very encouraging. The second Monro, Mr. John Bell, and several other teachers of eminence, were then in the height of their reputation, and in possession of the field; but even with these formidable rivals his punctuality and invariable attention to the interests of his class, secured him an annual increase to the number of his pupils. Independently of his merits as a teacher, much of his success has been attributed to his extensive acquaintance with the clergymen of Scotland; who are generally consulted by parents on the education and pursuits of their children. The Edinburgh College of Surgeons, too, paid his celebrity the marvellous compliment of passing a resolution, in 1804, acknowledging certificates of attendance on his anatomical and surgical lectures as equivalent to those of any other of the constituted authorities recognised by that body. His reputation was now fully established; and, to complete his happiness, we are told, that in 1811, he was enabled to accomplish a long-cherished object, by marrying Miss Eleanora Campbell, daughter of his patron, Sir James Campbell, in whose house he had hitherto continued to reside. From this period to 1815, there is nothing of any importance recorded of him; when, by the advice, of his friends in consequence of the declining state of his health, he was induced to enter into partnership with Dr. Knox, Conservator of the Museum of the Edinburgh College of Surgeons, who continues as his successor."

The memoir concludes with a notice of his bust, executed by the artist Joseph; the bequest of his valuable museum to the College of Surgeons; his last illness, commencing in an attack of apoplexy; and the disposing of his remains, which were interred in Restabrig, near Edinburgh, the family burial-ground of Sir Charles Campbell.

Of the benevolence of his disposition, and his gratitude for favours conferred, attributes common to every great mind, some striking traits are given; but of Dr. Barclay, as he was, those who had not been acquainted with him, can form no idea from this memoir which buries him beneath a drapery of general and unmeaning panegyric; which, however well deserved, is no substitute for a graphic representation of the individual. For some notice of his various works, which might naturally be expected here, we are put off with a simple enumeration of their titles, and a reference to the periodical journals for the opinions expressed of them as they were severally published. They consist of the article "Physiology" in the Encyclopedia Britannica, his first contribution to medical literature; his work on "Anatomical Nomenclature," published in 1803; a "Treatise on the Muscular Motions of the Human Body," brought out in 1808; a "Description of the Arteries of the Human Body," laid before the public in 1812; and his last and principal work, "An Inquiry into the Opinions, Ancient and Modern, concerning Life and Organization." Of these works, but particularly of the latest, it may be observed, generally, that they display more learning than discovery or invention; and that much of their author's reputation depends on its ingenious connexion with the doctrines and languages of antiquity. The classical acquirements of the divine, treasured up in half a life's study of the tenets of the schools of Greece and Italy, were suddenly transferred by the anatomist to the humbler literature of a different profession; where they made a splendid appearance, merely because such acquisitions were scarce in the field. In the same work some specimens of reasoning occur, which do not place his judgment in a favourable light, if we are to look on his arguments against phrenology as the result of his conviction; for an examination of every lunatic asylum might have demonstrated to him, that there is, at least, a coincidence between the modifications of matter and mind; that however defective this doctrine may he in detail, there is some foundation for it in nature, and that it is intitled to the same kind of belief and respectful scrutiny, as all other doctrines in physiology, resting on the universal usage of looking on concurrent phenomena as cause and effect. But perhaps his early associations with, and subsequent patronage derived from, the church, may, in some measure, help to explain his moral opposition to all theories involving, in the remotest degree, the interests of religion; and account for that mixture of faith and philosophy, which distinguish, and form none of the most rational passages of his works. The late period of life, too, at which he entered the profession, being in his thirty-sixth or seventh year at the time of his graduation, and his immediate engagement subsequently in the laborious duties of a teacher, may serve to account for the absence of practical observations, derived fiom his own experience, in his literary productions. Though professing to teach surgery, we are subsequently informed in this memoir, that he never sought or had any practice of that kind; a defect by no means uncommon among the teachers and writers in that science in Edinburgh. Yet when the number aud value of his writings, and his success as a professor, are considered in reference to the short time and difficulties under which both were accomplished, they must ever remain an honourable testimony of his industry and perseverance, and furnish an irrefutable answer to the opinions of those who inculcate the inutility of classical learning to the members of the medical profession. Of the lectures, which compose the latter part of the volume, we think it unnecessary to enter into any minute detail. They are five in number; four, introductory to a course of human, and one to a course of comparative anatomy, given during the summer months. They consist, as most essays of the kind do, of proofs of the utility of these sciences; of the plan proposed to have been followed in their tuition; and a concise history of the several discoveries and improvements by which they have been enriched by various anatomists of all ages and countries. They are extremely well designed for the attainment of their object; written in a perspicuous and unpretending style, and contain much information on the subjects of which they treat. As incentives to the student to consult for himself those sources of knowledge, which, though of easy access, are but too rarely approached by the majority of the profession; and as an instructive account of anatomy for those whose leisure or years preclude them from undertaking such a task; we can recommend these lectures with confidence to both.

The Glasgow Medical Journal. No. 1, *Feb.* 1, 1828.

We are probably the first contemporary through whom the editor and contributors of this new candidate for public patronage will receive an opinion of their labours; and there are many reasons which induce us to make a favourable report. Recollecting the extreme sensibility of youth, we entirely acquiesce in the propriety of that indulgence which "first appearances" of every kind have generally experienced; for though our own infancy was an exception to this clement usage, now that we are strong, we can be merciful, and even gratefully acknowledge the services of those who, while they attempted to destroy, only gave additional vigour to our constitution. Besides the protection due to its tender age, the work itself is a sufficient security against the more rigid application of criticism, having many peculiar qualities to recommend it to favour. These attributes are principally its purely scientific objects; freedom from all offensive pretension, and provincial character. So far it is exempt from the vice of insidious medical politics; not a syllable does it contain of the imperfections of its senior contemporaries; nor even a promise to remedy their defects. This is at least indicative of good taste and sound sense; for we never knew a bravado in the closet who was not a coward in action; nor a boaster who did not, in the end, prove himself an ass; and as it does not intend to enlist itself on the right side of professional politics, to be silent was prudent. It is, consequently, devoted exclusively to science, and local in its operations, being as completely of Glasgow composition, as one of the articles manufactured in that celebrated emporium of steam engines. Every page breathes of its "whereabout:" the writers, subscribers, and materials being, for the most part, made up out of the western capital of Scotland. To us, this locality constitutes one of its chief merits, as it enables us to see the precise state of the health and disease in a particular district, and the science and talent displayed by its medical practitioners. Highly approving, therefore, of a plan which promises to furnish us with a faithful account of the contentions between death and the doctors in a particular district of the country, we shall now proceed to give an analysis of its contents, which are mostly composed of what have been termed original communications.

The first of these is from the pen of Professor Jeffray, of Glasgow, giving an explanation, accompanied by a plate, of an instance of the irregular distribution of the venous system; and of its nature we cannot give a better idea than by quoting his own summary of the peculiarities of the case:—

> "The chief peculiarities seem to be,—that the vena cava, in passing behind the liver, avoided all connexion with the hepatic veins:—that there was, strictly speaking, no vena azygos on the left or the right side:—that the cava inferior, where it came up to the heart, divided into two unequal branches; the larger turning to the right, and the smaller to the left, but both avoiding the heart:—that the branch on the right side, which may be called the cava inferior dextra, followed the course of the vena azygos, and ended as if it had been the azygos in the cava superior, while the other, which may be called the cava inferior sinistra, ended in the left subclavian vein:—that the *dextra*, while it continued to do its duty as cava, assumed that of the azygos also, by receiving the portal veins, as soon as it passed the right emulgent:—that the *sinistra*, having come off from the *dextra* in the thorax, could not only act as an auxiliary cava in the right side of the thorax, but also do the duties of azygos there; but while in this way the duties of azygos would be performed to the whole of the right side and part of the left, the lower part of the left would be neglected; to guard against which, the left emulgent let up a large vein, which, while it conveyed to the cava inferior a part of the renal blood, must have also done the duty of azygos to the parts in its vicinity, as into it the lumbar veins were seen entering:—lastly, that all the blood, with the exception of that from the hepatic veins, must have been poured into the right auricle in this case, from above downwards, in one full and undivided stream."

This curiosity in the circulation was, we presume, met with in the dissecting room, and is neither accompanied by any particulars of the person during life in whom it occurred, nor any conclusion drawn from the facts stated.

The next paper is by Mr. Monteath, in which he enters into a minute anatomical description of the axillary artery, and gives the history of those cases in which that vessel had been tied, followed by a case in which he has operated in consequence of hæmorrhage having supervened on extensive sloughing of the arm, which had been severely contused by a carriage wheel passing over it. He gives the following account of the manner in which he performed the operation:—

"The patient being laid on a table, with his right side near to its edge, and his arm supported by an assistant, at a right angle with his body, the subclavian was to be compressed by the padded handle of a tourniquet against the first rib, in case of hæmorrhage. I made an incision three inches and a half long, extending along the course of the artery, from as high up in the axilla as the integuments would permit, to within half an inch in the sloughing of the arm, that is, to the border of the axilla. After cutting the skin and cellular substance half an inch deep, I performed the dissection with the handle of the knife and my forefinger nail, assisted occasionally by tearing a few fibres of membrane with the forceps. Two large nerves first presented, and behind the one next the humerus, lay the artery. By cutting the sheath of the nerve with the scalpel, I easily exposed the artery. A very large vein lay on its humeral aspect, not on the sternal, where I expected to find it; in this instance the venæ comites did not unite till high up in the axilla. I made a separation between the vein and artery with the forceps, by tearing the cellular substance. I now entered the armed aneurism needle easily between the vein and artery, pushed it round, and, by a few scratches of my nail, brought it through on the opposite side, the ligature being applied two inches above the tendon of the latissimus dorsi, and the wound brought together by adhesive plaister."

The patient, after a tedious convalescence, recovered the entire power of the arm and its sensibility, which was considerably diminished after the operation for some time. To this succeeds a case of obstructed respiration, by Dr. Sym, in a young infant, of rather a singular description. The symptoms were not unlike those attending croup. The breathing during sleep was difficult, and sometimes stertorous; while awake, it was performed perfectly natural. During these exacerbations of the disease, the tongue was retracted to the back of the mouth, and the larynx protruded excessively in front of the neck. At first, swallowing was little affected; the tonsils and uvula were scarcely more red and tumid than in the healthy state; but they subsequently became inflamed. A tumour, thought to have been an indurated gland, formed at the angle of the jaw, and some bloody purulent matter was once or twice expectorated. The dissection cleared up the ambiguity of these appearances, which we subjoin in the author's own words:—

"Tumour scarcely perceptible. The trachea and œsophagus being divided below the cricoid cartilage, and dissected up, a cyst, containing two ounces and a half of greenish matter, was found extending from the left side of the vertebræ, to the mastoid process of the right temporal bone, and nearly to the base of the cranium behind the fauces. Its coats were strong and thick, being white, and of a fibrous appearance externally, and granulated within. It was covered by the sterno-mastoid muscle and great blood-vessels of the neck, and a small projection of it formed the tumour supposed to have been an enlarged gland. The mucous membrane of the trachea was perfectly sound; that of the epiglottis was slightly thickened, and a few minute red vessels were observable at the rima glottidis; lungs healthy."

Abscesses in the situation described, both in infants and adults, are by no means so uncommon as the practice adopted by Dr. Sym would lead us to suppose; and, when understood, admit of easy relief by puncture with a trocar through the back of the fauces, which we conceive might have been attempted with success in the present instance.

A case of encysted dropsy, in which tapping was performed with a favourable result, and a paper containing an analysis of the mineral springs of Scotland, by Dr. Thompson, professor of chemistry in Glasgow, follow. In the former, we find nothing further than the result worth recording; and of the latter we could give no abbreviation. We then come to an elaborate essay on "porriginous ophthalmia," by Mr. Christian, of Liverpool; the following is the account which he gives of this complaint:—

"Porriginous ophthalmia is a disease of early life, affecting children principally, though sometimes seen in the adult subject. It is usually accompanied by an eruption of pustules on the face and head, which go through the stages of suppuration, ulceration, and desquamation; and if the eruption in its pustular form shall have disappeared before the inflammation of the eyes have (has) commenced, still there will almost always be found some traces of the disease in the form either of scales or fissures situated behind the ears, at the commissure of the palpebræ, or the junction of the old nose with the cheeks. It is worthy of remark, that when the fissure, or chap, is situated between the lips, attended with excoriation of the nostrils, the upper lip often swells, assuming the appearance of what is vulgarly called scrofulous lip, which may be the cause of this disease being referred to this origin. Sooner or later the ophthalmia commences, and the eye in a short time presents a highly vascular state of the conjunctival membrane. The inflammation appears in different degrees of intensity in different parts of the albuginea; and the vessels, which are much enlarged, are seen to run in clusters towards the central parts of the cornea, whilst this tunic, contiguous to these vessels, is more or less clouded. On minute inspection, a pustule, or vesicle, will be frequently found at the apex of this fasciculus of red vessels; but very often, instead of these, will be found depressions at the margin of the cornea; over the intermediate space. On some occasions, the cornea will be perfectly transparent, while the albuginea will present one or more yellow spots, elevated above the surrounding vascular superficies. Similar ulcers are sometimes found on the lining membrane of the palpebræ. Wherever situated, they render the motion of the eyelids painful; so that the eyes are kept fast closed, and their inspection becomes a matter of difficulty. The sight being affected only in proportion to the opacity, and as this is inconsiderable in some instances, the vision remains perfect; but the sight will be necessarily more or less impaired, according to the density of the opacity of the cornea. Very often black spots may be observed arising from the attenuation of the cornea occasioned by the ulcerative process, which sometimes perforates this tunic, and incarcerates a portion of the iris. Although the pain attendant on this affection of the eyes is not very great, yet, from the great irritability of these parts, the patient not only carefully shuns the light, but desires to lie with the face downwards, whilst the hands are generally applied to the forehead. The disease very often assumes a chronic form, leaving one or more opaque spots on the cornea, the consequence of lymph effused into its coats. The conjunctiva of the palpebræ likewise becomes changed in its structure; and from the long continuance of inflammation, which frequently extends by continuity to this part, there arises a morbid sensibility, which may be very properly called *impatience of light*, which is very difficult of removal."

Mr. Christian is of opinion, for many reasons, that this affection of the eyes is merely an accidental consequence of porrigo; or, in other words, that the disease is produced by the matter of the pustules being applied to the eyes. First, the ophthalmia never appears until the child is about six months old, or capable of relieving uneasy sensations, when it may transfer the matter from the sores to the eyes; secondly, the inflammation of the eyes never precedes the eruption of the scalp; and, thirdly, the pustules propagate themselves by contact to neighbouring parts, thus establishing their contagious character. Bleeding, blistering, and cold lotions, so much employed in other affections of the eyes, are seldom necessary. As he looks on the disease to be of a specific kind, he thinks mercurial applications deserve a preference; of these, he employs the oxymuriate of mercury in the proportion of a grain to an ounce water, or the calomel and lime water, known by the name of the black wash, with a small portion of the diluted ointment of nitrate of mercury insinuated between the eyelids. For the ulcers of the cornea, he uses a solution of the nitrate of silver, (two grains to the ounce of distilled water,) applied over the globe of the eye every second day; and for the removal of the morbid sensibility to light, a collyrium composed of four grains of sulphate of zinc to four ounces of water, with a drachm of the vinous tincture of opium, which is to be dropped, twice or thrice daily, into the eye.

Passing over two papers on the Dysentery which prevailed in Glasgow last season, we come to another on the application of the chloride of lime to some uses in which we have not heard of it being yet employed by any other practitioner. The writer states, that he has used successfully, in the proportion of two grains to an ounce of water, in fœtid ulceration of the gums;

fœtid lochial discharge; in dressing burns; for correcting a habitual fœtor of the breath; and, "in ptyalism," he states, it is of great consequence to many a young man to remove the fœtor of his breath, and to prevent the discovery of the disease. If it possesses these powers over the fœtor of the breath, we may naturally expect to see it shortly made the basis of all our dentifrices and washes for the mouth. The next is an Essay on Auscultation and Percussion, written, we presume, by Mr. Mackenzie, the conductor of the journal. We have no observation to make on it, further than it presents a favourable specimen of composition, and the selection of the subject would indicate the increasing though tardy attention which is paid to the stethoscope. It is succeeded by a case of injury of the spine, occurring in a gardener who fell from a branch in the act of pulling fruit from a tree. In this instance, the disease was confined to the body of the vertebræ, instead of the intervertebral cartilage, as may be collected from the following account of the morbid appearances on dissection:—

"In the posterior mediastinum, there was an abscess containing five ounces of curdy pus. This was situated opposite the sixth, seventh, and eighth dorsal vertebræ, and encroached considerably on the right side of the chest. The body of the seventh vertebra was almost destroyed by ulceration; the bodies of the other two were also partly absorbed. In no part had the disease extended to the intervertebral cartilage. Notwithstanding the extent of the destruction, the osseous structure of the diseased vertebræ was of its natural colour and hardness, and the disease commenced in, and was confined to, the bone."

Dr. Maclachlan gives the history of a case of "pulsating tumour of the scalp," somewhat resembling that in which Mr. Wardrop tied the carotid artery, which was also tied in the present instance. We shall give the description of the disease, the operation, and post-mortem appearances, in the author's own words, being of some importance.

"Soft, puffy, pulsating, and somewhat elastic swellings, of a varicose appearance, were found to occupy the course of the temporal posterior auris, and occipital arteries, and their principal branches, each branch terminating by a tortuous extremity. These swellings could be made partly to disappear by pressure. They pulsated synchronously with the heart, throughout their whole extent. Pressure on the carotid artery stopped their pulsations, and also by pressing on each of the trunks leading to them. They were not painful, and only disturbed the patient by violent throbbings, which deprived him for nights of his sleep. The integuments covering them were of a natural colour, except in the prominent parts, where they had a slightly bluish red tinge. The largest of them about the size of a split lemon, commenced in front of the ear and over the zygoma, and sent processes towards the forehead, the vertex, and back of the head. The disease commenced ten years ago, after arteriotomy, which was followed by a small aneurism, for the cure of which the artery was first cut, and afterwards tied lower down. The tumour reappeared in a short time, but produced little uneasiness for more than five years. On assuming its present character, pressure was tried, but could not be endured for any length of time. On applying to the writer of the case, the patient was anxious to have the carotid tied, having been told that the operation was the only means by which he could be cured. This, he was informed by the writer of the paper, could be done, after other means had been tried; and he, accordingly, tied the artery as it emerged from the parotid gland. On dividing the fascia-like substance covering the artery, it shot forth in the form of a loop, larger than a goose quill. It was thinner, and more diaphanous than a vein, and thrilled violently at each pulsation. A ligature was applied round this loop, which partially stopped the pulsation in the anterior and central portions of the tumour, which now felt flaccid and doughy. The state of the artery at this point, indicated the necessity of tying the common carotid, which was performed the next day, and completely stopped the pulsations in the various tumours, though they were diminished little in size. The patient died in four days, when the following appearances presented themselves on disection: the wound, which had adhered by the first intention, had partially opened by putrefaction, from the heat of the weather. The carotid, par vagum, and jugular vein, appeared as if never disturbed; there was no pus formed round the ligature. On slitting up the artery, and cutting through the ligature at the same time, small but soft clots of blood were found above and below the ligature, and the artery remained puckered by the recent deposition of lymph. Its inner coats were divided, as if with a knife; the outer was dense, strong, and entire. Below the ligature, the inner coat was of a vermilion red colour; even that of the thoracic aorta, bore equal marks of inflammation; but the vessel, at its bifurcation, was perfectly healthy in its appearance. The carotid in the neck was of its usual size and thickness; but, on examining its branches on the head, they were found to have degenerated into dilated tubes of extreme thinness and transparency, which, yielding to the impulse of the blood, had become elongated, contorted, and attenuated convolutions on themselves, so as to form the tumours in this singular disease. These tumours felt like placenta, and to the eye the large part over the ear looked like earth-worms coiled together."

To this paper succeeds a report of the practice in the Royal Infirmary of Glasgow, by Dr. Young, surgeon to that Institution. Omitting his more important operations, for which we have not space, we shall select one of its curiosities, the treatment of nævus maternus by vaccine inoculation:—

" Jane M'Gibbon, æt. three months, had a roundish tumour as large as a sixpence on the right side of the chin, of a purplish colour, and formed by blood-vessels. Round the border of the tumour, and over its surface, small punctures were made, and vaccine lymph freely applied. In ten days the whole disease was involved in one pustule; but when this became incrusted and thrown off, there remained a dark prominently-diseased surface. It suppurated twice after this, and at the end of five weeks the cure was completed, no vestige whatever of the nævus remaining."

Caustic or antimonial plaster, he thinks, would be equally effectual as the vaccine lymph in removing the slighter forms of this disease. The work concludes with a report of the diseases to which the Glasgow poor are subject, from the pen of Dr. Macfarlane; but we have so far exceeded our limits, that though wishing to give a more copious analysis of the contents of the work, we must conclude by heartily wishing it success.

CHELMSFORD AND ESSEX HORTICULTURAL SOCIETY.

[*From the Essex Herald.*]

A General Meeting of this Society, most respectably attended, was held at the Saracen's Head Inn, on Saturday last, for the purposes of auditing the accounts, for the election of new members, and for transacting other business.

At twelve o'clock, Mr. Howard, the able Secretary, having announced the names of the candidates for admission as Honorary Members, and their election, which unanimously followed, that gentleman proceeded to lay before the meeting an account of the expenditure, which statement being found correct, and other preliminary business having been disposed of, Mr. Howard proposed that Dr. Forster (at this time residing at Boreham), should take the chair, which, at the earnest request of those present, the Doctor most condescendingly complied with.

Shortly after, Dr Forster rose and addressed the Meeting on the prospects of the Society. He said, he felt much gratified by the honour conferred in proposing him to take the chair, but that, in the active pursuit of an arduous profession, one which prevented his being able to command his own time, he would accept that honour only *pro tempore*, and on the condition that the Society would, in the course of the year, consent to appoint some more able person to fill that situation. The worthy Chairman observed, that he had, all his life time, been an amateur of Botanical Science. Natural History had, indeed, been his favourite study from his earliest infancy, and he should feel particular pleasure in lending his aid, as far as might fall within the compass of his limited power and ability, to promote the views of the Society.

Mr. Howard hoped the original views of the Society—that of extending prizes to candidates for the best show of Fruit, instead of confining it to floral objects of botanical curiosity, would meet the general views of the members, and that a proposition to that effect, which he intended to submit to a subsequent general meeting, would be adopted as likely to meet the approbation of the public, by convincing them that the Society not only cultivated plants, but embraced objects of greater public utility, in a horticultural point of view. Mr. Howard named the fruits as objects most worthy of the Society, to be, in his opinion, the grape, the melon, the cucumber, the peach, the nectarine, and the pear. He also suggested the introduction of culinary productions.

Mr. Spurrell concurred in what had

fallen from the worthy Secretary. He thought certain fruits and certain flowers, which flourished at the same time, might be exhibited on the same day.

After a very pleasing discussion, which lasted a considerable time, upon the propositions of the two last speakers, it was agreed to postpone their further consideration, with other matters, until the next meeting.

Dr. Forster suggested the propriety of giving publicity to the proceedings of the Society, from time to time, in a small periodical publication, to be called the *Floral Herald*, and he would engage to take an active part in preparing such Report. The learned gentleman would also undertake, he said, as often as his limited time would admit, to translate from the *German* and *French* Journals, such articles as might be found of general interest to the Horticulturist. The Doctor spoke at considerable length on the great utility of publications like those he proposed, and of the powers of the press; he instanced The Lancet, as an example of the great magnitude and importance that such periodical works had acquired, which began by small *exordia*. The Lancet set out with reporting only a few medical facts and observations, but it had become of great importance, and was circulated on a scale perfectly unprecedented in the annals of medical literature; it had contributed essentially to promote the medical profession, and the rapid circulation of medical knowledge. He would recommend to the notice and support of the Society, a small work which would have for its object the circulation of information connected with Horticulture and Botany in all its branches, to be published at a small cost, in order that it might be accessible to cultivators generally, to contain a record of the principal improvements made in those sciences in the county of Essex and elsewhere, to which cultivators should be invited to contribute, at a time, too, when the almost simultaneous energies of the people in all counties were united in order to extend the benefits of education to all classes of the community; in diffusing such blessings, the good effects of a free periodical press was universally felt and acknowledged.

Dr. Forster then suggested that an eminent Botanist, not residing in the county, should be requested to become an Honorary Corresponding Member of the Society, and named Sir James Edward Smith, the President of the Linnean Society. The proposition was received with much applause, the general impression being, that such a name would be a great acquisition to the Society; the motion was carried with acclamation.

The importance of the accession of so active and useful a member as Dr. Forster, was felt and acknowledged by all present.

LIBRARY OF THE COLLEGE OF SURGEONS.

Royal College of Surgeons in London,
2d January, 1828.

Sir,—I am directed by the Board of Curators to inform you that the library of this college was opened on the 1st. instant under the following

REGULATIONS:

The reading-room of the college shall be open from ten till four every day, except on Saturdays and Sundays; except also during the month of August.

Members and articled students of the college shall be admitted to the reading-room.

Other persons, desirous of admission, shall send their applications in writing, (specifying their christian and surnames, rank, or profession, and places of abode,) to the Board of Curators.

Admission will be granted for six months, at the expiration of which time application shall be made for a renewal of the permission.

All possible despatch shall be used in supplying readers with such books as they may require.

Readers taking extracts from any book, shall not lay the paper on which they write, on any part of such book; nor shall any tracings be taken from any plate without the permission of the Board of Curators.

Readers are not to write on any part of a book belonging to the College; and if any one should observe a defect in any book, he is requested to communicate the same to the librarian.

N. B. The admission tickets are by no means transferable, nor may readers introduce friends, or amanuenses, without respective tickets.

Edm. Belfour, Secretary.

ST. THOMAS'S HOSPITAL.

CASE OF STONE IN THE BLADDER, IN WHICH THE OPERATION OF LITHOTOMY HAS BEEN TWICE PERFORMED BY MR. GREEN.

There is, at the present time, in Isaac's Ward of this Hospital, a patient, on whom Mr. Green has twice operated for stone in the bladder, and who is now, for the third time, labouring under symptoms indicative of the same disease. The particulars of this case, which Mr. Green mentioned a short time since, in a Clinical Lecture, are as follow:—

W. D. ætat. 45, from Northamptonshire, was admitted on the 12th of December: he stated that he had frequent micturition, with inability of retaining his urine, but that it frequently stayed of its own accord suddenly, he had smarting in the perineum, and a dull pain in the neck of the bladder, extending upwards to the loins; also, an acute pain at the end of the penis, after making water. In addition, he complained of pain in the thighs and legs, extending even down to the toes: the urine, in many instances, he said, dribbled away unconsciously, and he manifested great tenderness on pressure being made over the pubic, as well as the lumbar region. The symptoms, he described, as being much aggravated by motion, when the urine became bloody.

He laboured under a similar train of symptoms in the year 1824, at which time he was in the Hospital as a patient of Mr. Green, and, in the month of October, he underwent an operation for the extraction of a calculus of considerable size. He was dismissed, cured, at the latter end of the following month, November, but had not been absent from the Hospital more than three months, when he was again affected with the distressing signs, characteristic of stone, and the disease went on increasing so rapidly, that after a further lapse of eight months, he applied for admission, and was a second time placed under the care of Mr. Green. It being again unequivocally ascertained that a calculus existed, a second operation was performed, on the 14th of October, 1825. The stone was found to be of the triple phosphate kind, and owing to its brittleness, as well as to the hard and unyielding condition of the prostate gland, it crumbled upon extraction. The bladder was freely syringed, and, it was presumed, was fairly cleared out; however, at the expiration of four months, there were again indications of a renewal of disease; the symptoms gradually increased, and at length became so urgent, that he obtained admission a third time, when he was affected in the manner described above.

Mr. Green, in his Clinical Lecture, remarked, that he had distinctly ascertained, by sounding, the presence of a caculus in the bladder, but, as the man's general health was much affected, and there was reason to believe that the kidneys were in a state of disease, he should decline performing the operation a third time. Such, he said, was also the opinion of Dr. Prout, whom he had consulted on this case, and who had recommended the administration of an *infusion of uva ursi*, with soda, to be prepared with four drachms to an ounce of the plant, and one to four drachms of the subcarbonate of soda, infused together in a pint of boiling water. A wine glassful of this infusion, with a few drops of laudanum, or tincture of henbane, to be given three times a day.

Mr. Green especially pointed out the remarkable feature in this case, of the reproduction of calculi, which he said was almost invariably observed, where the first concretion is of the triple phosphate kind, the diathesis being so strong in such cases, that it is almost impossible to correct it; and, besides, the calculus forms with great rapidity.

The man continues in the Hospital, and has been, for some time, taking the medicine recommended by Dr. Prout, with slight benefit. When we last visited him, however, Feb. 9th, he remarked, that his sufferings were great, and said that he passed his water almost every hour. His constitution, evidently, is much undermined. Whatever may be the result, we shall take care to detail it.

TO CORRESPONDENTS.

The Letters of Medicus—Retired General Practitioner—Friend to Truth—Looker Forward—Retired Surgeon of the E. I. C.'s Army—Discipulus—E. J.—Londinensis—C.—Dr. J. P. Kay—Porcus—An Old Practitioner—C. P.—Mr. F. C. Cherry—The Resolutions of the Veterinary Students, and several other Communications, shall be inserted in our next Number.

To the Readers of The Lancet.

Macleod *v.* Wakley.

The "*Yellow Goth*" will be scarified by Mr. Brougham, on Monday next, the 18th inst., in the *Court of King's Bench*, Westminster.

THE LANCET.

Vol. I.] LONDON, SATURDAY, FEBRUARY 23. [1827-8.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXVIII.

On the Combinations of Potassium with Sulphur, Carbon and Phosphorus; on Sodium, and its Combination with Chlorine.

I omitted to state the other day, when speaking of gunpowder, that besides the composition I pointed out, there were a great many others employed in the act of *pyrotechny*, or the art of making *fire works*, in which the ingredients are so blended, that the gunpowder burns very slowly, and presents various colours during combustion, by the addition of iron, antimony, arsenic, and various other substances.

This brings us on to the action of *sulphur* upon the class of metals we are now considering; and it will be right to dwell a little upon it, as it is not clearly or correctly stated in chemical works. If we take a crude piece of potassium, and heat it with sulphur, you will find, that as soon as the sulphur rises in vapour, the potassium burns in it with great intensity; and, indeed, so much heat is evolved, that the tube in which it is ignited is generally broken: the two substances combine and form a *sulphuret of potash*. There are other modes which are had recourse to for the purpose of obtaining the sulphuret, which are more economical, and a very good one is that of heating the sulphate of potash with charcoal; the charcoal decomposes the salt, by abstracting the oxygen, and converts it into a sulphuret of potash, or *brine of sulphur*, as it was formerly called. It consists of 16 parts by weight, of sulphur, and 40 of potassium, giving 56 of the true sulphuret; it has a brown colour, is friable, dissolves readily in water, and gives rise, by its action on water, to a *hydro-sulphuret of potash*; and now, if, instead of one proportional of sulphur, we take two, and one proportional of potash, we get a bisulphuret of potash, the equivalent number of which is 72. You might heat this compound to a red heat, and the excess of sulphur would not fly off; so that the sulphuret is composed of one proportional, and the bisulphuret of one and two.

The sulphuret of potash, when dissolved in water, furnishes a transparent, and at first, a colourless solution, and in its action upon water, you will observe that the water is decomposed, and that the 16 parts of sulphur have combined with one of hydrogen to have produced sulphuretted hydrogen, and that eight of oxygen have united with 40 of potassium to form potash. When this compound is acted upon by water an effervescence takes place, and sulphuretted hydrogen escapes, but a sulphuret of potash remains and is not decomposed. If to this solution you add a concentrated acid, a copious precipitation of sulphur falls down, and sulphuretted hydrogen escapes. These compounds appear capable of combining with sulphur to an almost indefinite extent, taking up and dissolving it in very large quantities; but, if you take any compound of this kind, and expose it to heat, all the excess of sulphur falls down, and you have left a bisulphuret of potash, so that we cannot regard all those as definite compounds of sulphur and potash, but are led to conclude only that the true sulphurets of potash combine with and dissolve sulphur. Berzelius has mentioned fourteen or fifteen kinds of sulphuret of potash, but such a notion is very confused and probably incorrect. Suppose, now, that you heat sulphur with potassa instead of potassium, the result then will be very different; you will have the potash and its water decomposed; you will have a sulphate of potash and sulphite of potassium formed, and you will have sulphurous and sulphuric acids produced, as well as the other sulphurets I have adverted to. There is a substance described in the Pharmacopœia, called *potassæ sulphuretum*, and the action of the sulphur upon the potash in forming this compound is very complicated; but the fact to which I wish to call your attention is, that sulphuretted hydrogen and the sulphuret of potash, and the bisulphuret, are often used indiscriminately as tests for lead, whereas they ought not to be; the sulphuret, containing one proportional of sulphur, ought only to be used, as the precipitate is very much influenced by the quantity of sulphur employed.

The *sulphite* and *hyposulphite* of potash are salts of no particular importance. Potash united with sulphuric acid produces a *sulphate of potash*, commonly known as *vitriolated tartar, sal de duobus*, and other fantastic names. It may be obtained directly by saturating sulphuric acid by potash; the solution crystalises on evaporation, and the crystals are six-sided prisms, terminated by six-sided pyramids, but they are generally imperfectly formed from the careless manner in which the process is conducted. It is composed of one proportion of potash 48, and of one of sulphuric acid 40, and its equivalent is 88; and you will observe that it is an anhydrous salt, there being no water of crystallisation in it. If you dissolve it in sulphuric acid, and carefully evaporate the solution, you obtain a crystallised salt, containing a double quantity of sulphuric acid, which is a *bisulphate of potash;* a salt which is very abundantly formed in the chemical laboratory by the distillation of nitric acid; for if you take equal weights of nitre and sulphuric acid, the nitric acid passes over, and you have a salt produced which is the bi-sulphate of potash, or as it is commonly called in the arts, *sal enixum*. This salt has a peculiar bitterish taste, is difficultly soluble in water, and is chiefly employed in medicine; if you heat it alone it undergoes no change, nor does it undergo any change when heated with sulphur, but if with charcoal it is decomposed and converted into a sulphuret of potash. If you add ammonia to this salt you will obtain a triple salt, namely, a *sulphate of potash and ammonia*. The *phosphuret of potassium*, and the *phosphates of potash*, are not compounds of any importance; and this brings us to the consideration of the most important compounds of potash, namely, the carbonates.

There are two *carbonates of potash;* the one commonly called the *carbonate*, and the other the *bicarbonate*, distinguished of course from the former by its containing twice the quantity of carbonic acid. These substances have been known under a great variety of names, such as vegetable alkali, pearl-ash and potash, salt of tartar, salt of wormwood, and from being obtained from a variety of vegetables it often bore their names. With respect to the composition of these salts, they consist of one proportional and one, and one and two. The *Pharmacopœia* calls these salts the *sub-carbonate* and *carbonate* of potash; but chemists call them the carbonate and bi-carbonate of potash.

Now the *carbonate of potash* consists of one proportional of potash 48, and one of carbonic acid 22, its equivalent is therefore 70. The *bi-carbonate* consists of one proportional of potash 48, and of two of carbonic acid 44, in its dry state, and in its crystallised state of one proportional of water 9, so that its equivalent number is 101. There is also an intermediate salt, a *sesqui-carbonate of potash*, composed of one proportional of potash, and of one and a half of carbonic acid, and I might show you the direct formation of this salt, if it was worth while, by exposing the potash to carbonic acid. Now, as to the distinction between the carbonate and bicarbonate, the carbonate does not undergo any change, at a red heat it does not give out any of its carbonic acid, whereas the bicarbonate loses half of the carbonic acid it contains, and is converted into the carbonate; so that if you heat the bicarbonate its water of crystallisation is drawn off, and half of its carbonic acid is given out.

The history of the mode of obtaining potash is interesting, and I shall give you a brief outline of it. It is produced by the combustion of wood, and is therefore furnished in large quantities where there are large forests. When the wood is burned the ashes are lixiviated with water, and evaporated to dryness. The substance which remains is called potash, which, being afterwards calcined, the carbonaceous matter which it may contain is burned away, the mass becomes white, and it is then called *pearl-ash*, which is an impure carbonate of potash. To purify it for common purposes, we mix it with its weight of cold water, and then filter the solution; the carbonate of potash being more soluble than the other salts, and then by evaporating the water we obtain the carbonate of potash in a pretty pure state. There are a number of other proceedings by which it may be obtained for chemical purposes, but the best mode to obtain it pure is to heat the crystals of the bi-carbonate of potash, and thus reduce it to a carbonate; because there are many matters which adhere with great obstinacy to the potash. Now, as this is an article of great commercial importance, it becomes very necessary that the purchaser should have a ready means of determining its value. In the pearl-ash of commerce there are frequently as much as 70 or 80 per cent. of impurities, almost always from 25 to 30, and therefore the best mode of determining its value is to determine its saturating power. Now 100 grains of pure potash requires 83$\frac{32}{100}$ grains of dry sulphuric acid for their saturation, and 100 grains of carbonate of potash 57$\frac{14}{100}$ grains of the same acid for their saturation; so that from their data, and the rule of three, you will easily determine the saturating power of any sample of potash or pearl-ash. But for practical purposes there is another process, which consists in using liquid sulphuric acid of the specific gravity of 1140, 335 grains of which exactly neutralise 100 parts of dry carbonate of potash, and these means suffice for all the common purposes of experiment. In adding the acid to the alkali, you should take care that you only add enough to neutralise it, and not go beyond it, and you should make the saturation with the assistance of heat, so as to drive off any portion of carbonic acid which might be adhering to the solution.

When potash is exposed to the air it deliquesces and becomes fluid, and this was formerly called the oil of tartar, *per deliquium;* and if you pass carbonic acid into a solution of the carbonate of potash, it will take up a considerable quantity of it and be converted into the bicarbonate, which may be readily crystallised, whereas the carbonate crystallises with considerable difficulty. The chief use of the bicarbonate of potash is in medicine, but it is also used in the arts for the clearing of metals, and in the manufacture of alum. The carbonate of potash reddens turmeric paper like a pure alkali, and is very caustic to the taste. When carbonate of potash is mixed with *lime*, the lime absorbs its carbonic acid, and the potash is brought into its pure or caustic state. The other combinations of potash are scarcely worth mentioning; when heated with *cyanogen*, and put into water, a *hydrocyanate of potash* is formed; but I should have mentioned to you, that when a solution of bicarbonate of potash is boiled it loses a proportional of its carbonic acid, so as to leave the remaining compound in the state of a sesqui-carbonate.

Sodium.—Now, after the time we have bestowed on potassium, we may pass very hastily over the compounds of *sodium*, and, in the first place, with regard to its production. It is exactly the same as that for the manufacture of potash, only marine plants are substituted for those of the land. The metal is of a brilliant white colour, soft and malleable; not so fusible as potassium; it acts upon air and water in the same manner as potassium, and is highly combustible, but it does not dissolve in hydrogen, and therefore does not burn with the same brilliancy when thrown into water as potassium does. Here is a bit of sodium, which I shall put into water, and you see a little globe of metal running about upon the water decomposing it, now and then inflaming the hydrogen which is given out. It fuses at about 200°, and then burns much in the same manner as potassium; and I need hardly observe that this metal was discovered about the same time as potassium, and in the same manner. The water on which you saw the sodium running about has now become strongly alkaline, and is in fact a solution of soda. We may learn how much oxygen has been abstracted to convert the sodium into soda by the quantity of hydrogen given out, and the result teaches us that one proportional of metal 24, unites with four proportionals, or 32 of oxygen, so that its equivalent is 56. Pure or caustic soda may be obtained in the same way as was followed in the production of the caustic or pure potash. Soda is highly caustic; it combines with oils and fatty matter, forming soap; and I may remark here, that the hard soaps are formed with soda, and the soft soaps with potash.

When *chlorine* and *sodium* act upon each other, that action corresponds exactly with the action of chlorine upon potassium. *Chloride of sodium*, or *common salt*, is composed of 36 chlorine and 24 sodium, so that if this quantity of sodium be burned in 36 parts by weight of chlorine, the result is the formation of 60 parts of common salt. Now, with regard to common salt, it is met with in a great variety of forms, but their differences of form are rather mechanical than chemical. Its taste is well known as being purely salt, and its value and importance as a condiment are very well known. When exposed to heat it decrepitates, that is, it falls to pieces with a crackling noise. If you heat potassium with common salt it attracts the chlorine, a chloride of potassium is formed, and the sodium is liberated, which is the easiest manner of obtaining sodium, and which is at the same time an excellent illustration of common salt; proving that it is a chloride of sodium. Its solubility has been generally estimated by its boiling solution, which holds little more of the salt than its cold solution. There is a variety of names by which it is known in commerce, as rock salt, bay salt, French salt, and so forth, but they appear to be rather mechanical differences than any thing else. In the preservation of coarse provisions the French salt is preferred, and it appears that the harder the salt is the better it is for this purpose; and some time ago a patent was taken out for the hardening of salt, which I believe answers very well. The form of its crystal is a cube; but, if the solution be rapidly evaporated the cube is irregular or hollow, containing within it a number of smaller cubes, giving you an illustration of the theory of crystallisation. We have already availed ourselves pretty largely of it in the chemical laboratory in the production of nitric acid, muriate of ammonia, and other things. There has been a great stir about the application of it to agricultural purposes, but I believe that its use in this respect has been very much overrated. That it may be of use in particular soils in particular crops, there can be no doubt; it may also be a great protection against insects, but much mischief has been done by its injudicious use.

When common salt is acted upon by sulphuric or nitric acid it is decomposed, and furnishes *muriatic acid*, as you have already seen, and the product of the residue of that distillation is *sulphate of soda*. If you mix together 60 parts by weight of common salt, and 47 of oil of vitriol, the result is the production of 72 sulphate of soda. The sources of common salt are numerous, but sea water is the great depot of it, 100 parts of which contain 2.66 of common salt; so that a pint of sea water will contain 180 grains of common salt. Now, by evaporating sea water, a great quantity of this salt may be obtained along with a variety of other substances, such as muriate and sulphate of magnesia, and others; and it is in consequence of sea salt retaining magnesia that it is deliquescent on exposure to air, which is often a very inconvenient effect, and requires the salt to be purified. Then again a large quantity of salt is found in the native state in the county of Cheshire and other places, and sometimes it is found clear, sometimes coloured with the metallic oxides, especially the oxide of iron. So that there appears to be a very abundant supply. In general this subterranean salt is submitted to the action of water, and the solution is pumped out of the mine, which by evaporation furnishes a pretty pure salt; and it is owing to its peculiar property of being as soluble in cold as in hot water that the salt maker is enabled to obtain such large quantities of it so readily.

In the next lecture we shall proceed with the other combinations of sodium, and begin the consideration of the metal *calcium*, or the base of *lime*.

Lecture XXIX.

The conclusion of the last lecture brought us to the consideration of *chloride of sodium*, or common salt, and I stated that it might be formed by burning sodium in chlorine, or by dissolving it in muriatic acid; and there can be no difficulty in understanding why, when sodium and muriatic acid are brought together, they combine to form common salt. Common salt however is never obtained by any process of this kind, because it is furnished abundantly from the sources already adverted to in nature; namely, from water and rock-salt. It is used in immense quantities in various processes of the arts, but more especially in two or three, as in the manufacture of chlorine, of oil of vitriol, and certain other products, particularly muriatic acid.

With regard to the production of *muriatic acid:* when common salt and oil of vitriol are mixed together, the chlorine and hydrogen combine to produce muriatic acid; the chlorine being derived from the common salt, and the hydrogen from the water of the oil of vitriol; and the sodium of the salt combines with the oxygen contained in the water of the oil of vitriol to form soda, which combines with the sulphuric acid to form a sulphate of soda. This is the decomposition which takes place in the production of muriatic acid in this way.

The *chlorate of soda* is a similarly constituted salt with the chlorate of potash, but not of proportional interest or importance, and it has nearly the same solubility as the chloride of sodium. You can, however, obtain a pure chlorate at any time, by dissolving soda in chloric acid. The *iodide of sodium*, the *iodate of soda*, and the *hydriodate of soda*, are salts of no particular importance. The nitrate of soda is easily obtained by saturating soda with nitric acid, and is frequently furnished by certain natural operations. It used to be called *cubic nitre*. It is not a salt of much use; it is employed sometimes in making fire-works, but it is too deliquescent for the manufacture of gunpowder. The *sulphuret of sodium*, and the *hydrosulphuret of soda*, are formed exactly like the corresponding salt of potash.

Sulphate of soda, or as it was formerly called, *Glauber's salt*, in consequence of its discoverer, or *sal mirabile*, is an abundant product in certain of the earths. Now its composition, you will observe, from this table, to consist of water of crystalisation 90 parts, of dry sulphate of soda 72, making 162 of the crystalised salt. It is one of those salts which, in the crystalised state, contains considerably more than its own weight of water. By heating it, so as to drive off this water, it becomes a dry pulverulent powder, and by heating it beyond that degree it forms into an enamel; but no degree of heat, which we are capable of producing, will separate its sulphuric acid. The salt is usually coated with a white powder on exposure to air. When it is to be exported, and if it be an object to save room, it would be well to dry it, as it might be readily re-crystalised by depositing it in water, and evaporating the solution. It may be obtained directly by saturating sulphuric acid with soda; but, as you have seen, it is obtained very abundantly by the action of sulphuric acid upon common salt, in the manufacture of muriatic acid, and indeed so abundantly, that the market is surcharged with it, and the manufacturer is often at a loss to know what to do with it. It dissolves in about twice its weight of water; it has a bitterish taste, and fuses on the application of heat, that is, it melts into its own water of crystalisation, and when this has evaporated it fuses. It is converted into a carbonate of soda by the action of chalk or charcoal, at a high temperature, and then you obtain a very marketable article. If you dissolve the sulphate in sulphuric acid, you obtain a *bisulphate of soda*; but it is a salt of no use. You will remember that Glauber obtained this salt originally by acting common salt with sulphuric acid. He also discovered muriatic acid, and he ascribed a great many virtues to the salt, some of which it does not possess, and he called it the *sal mirabile.*

The *phosphate of soda* is obtained by saturating the impure phosphoric acid obtained from the calcination of bones with soda, and this composed of 32 soda and 60 of phosphoric acid, its equivalent by 92. It was introduced into medicine under the name of *tasteless aperient salt*; but it has a bitter, nauseous, alkaline taste, and, in my opinion, is the most disagreeable of the aperient salts we can have recourse to. The *bi-phosphate of soda* may be obtained, by adding phosphoric acid to the salt in crystals; and if the excess of phosphoric acid be saturated with ammonia, you then obtain a triple salt, found in the urine, a phosphate of magnesia and ammonia, a salt to be adverted to, more particularly, when upon the animal secretion.

The market is almost exclusively supplied from two sources, namely, from *barilla* and *kelp*. Barilla is the ash or coal obtained by burning the *salsola soda*, a plant largely cultivated upon the Mediterranean shores of Spain, in the neighbourhood of Alicant. When the seeds of the plant are ripe, they are gathered, and the plant is cut down and burnt, and the residue is barilla, which is found to contain a carbonate of soda with many impurities, especially common salt. The carbonate of soda is separated from it by lixiviate, and afterwards crystalised. *Kelp*, another source of this article, is the ash of sea-mud, collected upon the rocky coasts, and it is made on the Hebrides and the western coast of Scotland, in an extensive way; the ash, by lixiviation, affords a carbonate of soda, but the kelp seldom contains more than about five per cent. of the carbonate, and about twenty-four tons of sea mud are required to produce one ton of kelp. The hardest *fuci*, such as the *sirratus, digitatus, nodosus*, and *vesiculosus*, are found to produce the best kelp. Soda is also brought into the market, obtained from another source, and is called factitious soda, or the *soude factice* of the French; and there are, in some parts of the world, large plains covered with an efflorescence of the native carbonate of soda. Mr. Brande then showed various specimens of the native carbonates of soda, from the kingdom of Feggan in Africa, from Tripoli, from India, and from Teneriffe. You will, of course, consider that they are not all pure carbonates; but that from Tripoli seems almost pure. By lixiviating these varieties of impure soda, barilla and kelp, and the native carbonate, the market is supplied with this article. It is easily crystalised, and its primitive form is an octahedron with a rhombic base; but the solid angles of the summit are always wanting, being deplaced by planes parallel to the base, thus presenting a solid with ten surfaces. It dissolves readily in cold water; and, in regard to its composition, you must consider it in its dry and in its crystallised state. In its dry state, it is composed of 32 soda, and 22 carbonic acid, forming 54 of dry carbonate of soda; but in its crystallised state, it contains an immense quantity of water, so that 54 parts of the dry salt combine with 99 parts of water, to form 153 of the crystallised salt. There is, perhaps, some little doubt with regard to this number, because it is very difficult to obtain any quantity of water in a very deliquescent salt; but that number has been adopted, in consequence of some experiments of Mr. Richard Phillips, on this salt; and it may be regarded as being pretty correct. In the *Pharmacopœia* language it is called the *subcarbonate of soda*; and that salt, which we shall call the bi-carbonate, is called in the Pharmacopœia, the *carbonate*, exactly as is the case with the corresponding salts of potash.

In determinnig the value of any sample or specimen of barilla, you proceed exactly in the same way as you would to determine the value of any specimen of pearl ash, or potash, by determining its saturating power with the acids. You dissolve a given quantity of the salt in water, and filter the solution, and then determine correctly what quantity of an acid of a known specific gravity will saturate the quantity of the alkali you are examining. This is the simplest and the best mode of proceeding; and it may be useful to you to know, that 100 parts of diluted nitric acid, at a specific gravity of 1.36, will saturate about 50 parts of dry carbonate of soda, which are equivalent to about 29 of pure soda. I shall not undertake to mention all the uses of this salt to you now, as they will be continually coming before you; but I may state, that one extensive use of the salt is the manufacture of *soap*. It combines with oily bodies, like other alkalies, and it has the property of forming with them a hard soap; if soda be not employed, common salt and potash are used as a substitute by the manufacturer.

The *bi-carbonate of soda* is easily formed, by passing carbonic acid through a solution of carbonate of soda, when the bicarbonate, in consequence of its dificult solubility, falls down in the form of a white powder. It consists of two proportionals of carbonic acid 44, and one proportional of soda 32, giving, as its equivalent, the number 76. If you heat a solution of this salt, it loses such a proportion of its carbonic acid as to convert it into a *sesqui carbonate*, or into a salt containing two proportionals of soda and three of carbonic acid; and it is a curious fact, that Mr. Phillips's analysis of the native carbonate from Tripoli, has given us a salt of an analogous formation. He considers it as composed of three proportions of carbonic acid 66, two of soda 64, and 36 of water; and that its equivalent is 166; or, what is the same thing, of one of soda and a proportional and half of acid.

There is a salt very well known in medicine, and commonly used in the arts, under the name of *borax*, and it appears to be a *borate of soda*; but in what proportions the acid is combined with the base it is very difficult to state. Dr. Thomson calls it biborate of soda, and regards it as composed of two proportionals boracic, acid and one proportional of soda. Others consider that the soda predominates; but there is one curious property of the borate of soda, which is, that it reddens turmeric paper like an alkali, although it has no alkaline taste. It is imported chiefly from the East Indies, under the name of tincal, which contains impurities of various kinds, from which the borax is freed by calcination and after crystalisation. That it is composed of boracic acid and soda there can be no doubt; but the relative proportion in which these combine have not yet been sufficiently demonstrated. In practical chemistry it is of great use, by enabling us to fine metals under the blow pipe, and by enabling us to determine, by the colour of the glass formed, the nature of the substance submitted to the blow-pipe. Muslins, and other articles of female dress, have been steeped in a solution of borax previous to ironing, and it has been found that such articles are rendered less combustible by that process; so that the danger of fire is thereby diminished.

After what I have stated to you, of the salts of potash and soda, you will have no difficulty in determining the presence of these two alkalies. If you wish to determine whether any alkaline substance be potash or soda, saturate it with sulphuric acid, and crystalise the solution by evaporation. The crystals of the sulphate of potash are very difficultly soluble in water; the crystals are dodecaëdrous; whilst sulphate of soda is very easily soluble, and its crystals are four sided prisms. The nitrates of the two salts are also easy to be distinguished by the shape of their crystals; the nitrate of soda forming cubes, and the nitrate of potash crystalises in six sided prisms. If you wish to distinguish the two pure alkalies, employ the tartaric acid, or muriate of platinum: the muriate of platinum produces no precipitation from a solution of soda, but it does from a solution of potash; the tartrate of soda, you know, is a salt easily soluble in water. Consequently we have no precipitation from a solution of soda, by adding to it this acid; whereas, if you add tartaric acid in excess to a solution of potash, you find that you throw down a quantity of granular crystals, which are crystals of the supertartrate of potash, or cream of tartar, which is soluble with difficulty. So that you have a tolerably good distinction of the two classes of alkalies, by the tests I have mentioned. I might point out others, but these are sufficient for common purposes. In concluding this subject, I may remark, that potassium and sodium readily combine, and produce an alloy which, if made of three parts sodium and one of potassium, remains fluid at 32°; but if composed of equal parts, the alloy is brittle.

Lithium.—The next substance upon our list is *lithium*, a metal of which we know very little. I believe it has been never seen, although there can be little doubt of its existence as a metal, from analogy. It reddens vegetable yellows, and turns vegetable blues to green, and its representative number is 10. The oxide of lithium, or its salifiable compound, is composed of one proportional of metal 10, and of one of oxygen 8, its equivalent being 18. There is one remarkable circumstance in lithium, which is its great saturating power, or, in other words, its low representative number; and it was by remarking that a small quantity of this substance saturated a large quantity of acid, that its discoverer, Arfwedson, ascertained that it was a different substance from soda, with which it was before confounded; and this happened in the analysis of a mineral called *petalite*. It is a matter of abstract chemical inquiry, and, therefore, I shall not trouble you with any longer account of it. It is also found in the metal *triphane* or *spodumene*, from which, or from petalite, lithium may be obtained by the following method. You reduce the mineral containing it to a very fine powder, and fuse it in a silver or platinum crucible, with about half its weight of potash. You dissolve the mass which you then obtain in muriatic acid; you filter the solution, and evaporate it to dryness. Now, putting other matters out of the question, you have in this dry mass a mixed chloride of potassium and lithium; chloride of potassium is insoluble in alcohol, and chloride of lithium perfectly so; you thus obtain the chloride of lithium in the alcohol. Into this solution you may throw an oxide of silver, which takes the chlorine from the lithium, forming a chloride of silver, which is easily separable, on account of its insolubility, and you have the lithium left. It is distinguished from the two alkalies already described, by the solubility of its chloride in alcohol, and by the distinct set of salts which it forms. Its combination with *oxygen* is called *lithia*, and it combines with chlorine and iodine. Lithia unites with several acids, forming salts of lithia; but as these are rather matters of chemical curiosity than use, we shall pass them over.

Calcium.—Now, then, we come to the subject of lime, and of the metal calcium. Here is some common quick lime reduced to a state of powder, and in this state it may be regarded as a metallic oxide. The discovery of calcium in lime was not made until some time after sodium and potassium; experiment soon determined what analogical reasoning had presumed, namely, that lime might have a metallic base.

Quick lime, or the *oxide of calcium*, is composed of 20 parts of metal, and 8 of oxygen, making 28 its equivalent number; and this is its equivalent in all the combinations which it forms with the acids to produce the salts of lime. But, in the general way, we find lime combined with water, the hydrate of lime, which is composed of 28 dry lime, and 9 water, its equivalent being 37. Calcium has been obtained in very small quantities; it is so combustible, and so difficult to preserve, that it has not been collected in sufficient quantity to determine its nature very decidedly; but that it is a white metal, there can be no doubt. It is eminently combustible, having a vehement attraction for hydrogen and oxygen. Now, if you act upon lime with chlorine, you expel the oxygen, and obtain a chloride of calcium; and this is a very satisfactory evidence of lime being a metallic oxide. Lime is found abundantly in nature in different forms, constituting large hills of chalk and limestone; and it is obtained free from carbonic acid, by calcining the native carbonate of lime; but, obtained in this way, it is not very pure, so that if we wish to have it very pure, we take a piece of marble, a piece of white carrara is the best, and expose it to heat for a few hours, the carbonic acid is driven off, and you then obtain a pure lime. Chalk also furnishes a tolerably pure lime, with which there is usually about one or two per cent. of some other earths.

The properties of lime in a pure state are somewhat singular. In the first place, it has a strong attraction for water, and absorbs carbonic acid. You find that a great deal of heat is evolved when lime is slaked, and that it crumbles down into a white powder. Now, this is nothing more than the combination of the dry lime with water; and if you take the lime so slaked, and dry it with a gentle heat, so as to drive off the excess of water, you will find that it contains one proportional of water. You will observe, that the vapour which passes off from the slaking of the lime, has a strong alkaline smell; and if you hold a piece of turmeric paper in it, it will become reddened. The temperature produced by the slaking of lime is very high, being nearly 300°; and accidents have often occurred, from bits of wood getting into the mass of slaking lime, when they have ignited, and communicated the fire to neighbouring combustible bodies. If to this slaked or hydrated lime we add a larger quantity of water, we shall find that a portion of the lime will be dissolved in the water, and we obtain the solution of lime, called *lime water*. It is a curious fact with regard to lime-water, and to the solubility of lime generally, that cold water takes up more than hot water. Water at 32°, or thereabouts, dissolves 11 grains of lime; at 60°, only between 9 and 10; and at the boiling point, not more than five or six grains. This appears to depend upon some mechanical property of the particles of lime, the particles appearing to cohere together at high temperatures. The solution of lime has a bitter and highly alkaline taste; and although the proportion of lime contained in the solution is small, it still acts with great energy upon vegetable colours. If you expose lime water to air for some time, or if you pour it frequently from one vessel to another, it will become turbid, in consequence of the absorption of carbonic acid from the air. You may also render it turbid by blowing air into it from the lungs, or by adding in any way carbonic acid to it. Here is a solution of carbonate of potash; and if I pour it into a solution of lime, it will cause a precipitation of carbonate of lime, and the potash will be left in the caustic state. Lime-water is often, therefore, employed as a test for carbonic acid, and gases are often washed with it for that purpose. As is the case with potash and soda, if you pass oxygen over lime, the oxygen is absorbed, and a peroxide of lime is produced.

The uses of lime in the arts are very numerous, and will be pointed out to you by and bye. It is exceedingly difficult to fuse; but it materially assists the reduction of most earthy bodies, from its singular character of emitting a great quantity of heat at high temperatures, and is therefore a cheap and powerful flux. If you direct a stream of oxygen through a blow-pipe upon a piece of lime, the light is so intense that the eye can scarcely look at it; and Lieutenant Drummond has used this kind of light for making signals in certain trigonometrical observations.

If you heat lime with *chlorine*, in a tube, the oxygen will pass out at the end of the tube, and the lime will absorb the chlorine and a *chloride of calcium* will be formed, which substance is very soluble in water; and by a careful crystalisation you may obtain it in prismatic crystals, which are very deliquescent, and which has been called *muriate of lime;* but very improperly so called, because we have no evidence of the fact of its containing any muriatic acid whatever. You may, perhaps, inquire why some chemists say that all chlorides become muriates when dissolved in water? I can see no evidence of the fact; and when they say that chloride of sodium, or common salt, upon the table, is muriate of soda in the mouth, I am free to confess that it is a chemical quibble, and such as I cannot understand. The test is simple, and the matter may be easily settled. Dissolve some chloride of calcium in water, and evaporate the solution; if there be no chloride of calcium remaining, but a muriate of lime, then you may say that the water is decomposed, and that by each decomposition the one substance is converted into another; but such is not the case. Many of the chlorides may dissolve in water, without decomposition, and many of them do; many are also decomposed and converted into muriates and oxides.

The chloride of calcium is applied to many purposes in the arts, and is used in the laboratory for producing intense cold when mixed with snow. It is very soluble in, and absorbs water with great avidity; so that we employ it for the purpose of abstracting water from substances in the course of our experiments. Its composition is 20 parts by weight of calcium, and 36 chlorine, to form 56, its equivalent number.

In the next Lecture we shall take up the formation of the *chloride of lime,* or the *oxymuriate of lime,* as it was formerly called, and the *chlorate of lime.*

COURT OF COMMON PLEAS,

WESTMINSTER, FEB. 13.

(Sittings after Hilary Term, before Mr. Justice BURROUGH *and Common Juries.)*

ROLFE *v.* STANLEY.

Mr. PATTESON opened the pleadings. In this case William Rolfe was the plaintiff, and Edward Stanley the defendant. The declaration stated that the defendant was a surgeon, and that in that character he undertook to use due care, diligence, and skill in the cure of the plaintiff's knee, which had received a severe injury. It then went on to state, that he did not use due care and diligence, and that, in consequence, the plaintiff suffered great misery and pain, that his leg and thigh wasted, and that he was compelled to call in another surgeon, to effect that which the defendant had undertaken, but neglected, to do. The defendant pleaded the general issue.

Mr. Sergeant CROSS (with whom was Mr. Sergeant JONES) stated, that he felt much sorrow in being obliged to bring before the Court and Jury a complaint against a respectable surgeon, and more especially when that complaint was for a neglect of duty, which, if he was rightly informed, had been the cause of twelve months of misery and pain to his unfortunate client. In opening this case, he felt aware of the difficulties he might meet with in establishing it, for there was no class of cases so difficult to establish, by legal evidence, as that to which the present belonged. All that plaintiffs, in such cases as this, could do, was to lay before the jury a plain statement of facts, for it rarely happened that they could obtain the attendance of professional men to give an unfavourable account of the conduct of any member of that profession to which they themselves belonged. The defendant, on the contrary, had never any difficulty in getting hosts of the profession to attest his skill and attention. It was not the learned Sergeant's purpose, however, in this action, to attack or depreciate the defendant's skill or experience; that, indeed, he was prepared to admit, but the question the jury would have to try, was, whether he had brought into this case such a due share of that skill and experience as the plaintiff had a right to expect from him: that he had not done so would be placed beyond all doubt, by the evidence of those who would be placed in the box, and it would then be for the jury to say what compensation he should make for the pain and misery, and loss of time, he had occasioned by his neglect. The plaintiff was a young man, slightly made, but of a sound constitution, of about twenty-five years of age, and had for some time carried on the business of a draper, in partnership with his father, in Dean Street, Soho. It happened on the 2d of December in the year before last, that he was thrown from his horse, and falling on his right knee on a loose gravel road, his knee was much lacerated and bruised, and, as it afterwards appeared, some pieces of the gravel penetrated the flesh, and were forced into the knee. He was attended on the spot by an apothecary, who, having dressed his wounds, conveyed him home, when Mr. Stanley was called in, and on examining the knee, pronounced it as his opinion that the knee-pan was broken. During this time, the plaintiff was suffering the most excruciating pain from the moveable substance within the knee, which the defendant considered to be a fragment of the bone. Under this mistaken idea, he directed two splints to be placed on the thigh, in order to approximate that which he considered to be bone within the joint, and by that means to cause them to unite. Mr. Stanley continued this treatment for some time, notwithstanding the dreadful agony which it caused the plaintiff, until at length the flesh healed, and the stone was inclosed. When this was effected, the patient felt some mitigation of the pain which he had previously endured, and the defendant took his leave of him, assuring him that he had nothing more to do than to keep himself quiet, and to give the limb as much rest as possible. The plaintiff did accordingly abstain from any kind of business; but, contrary to his expectations, instead of mending, he found his health and lameness become daily much worse, and he continued to linger in great pain until the September following, when another medical adviser was called in by the advice of Mr. Janet, the apothecary, who had constantly attended him. When this gentleman, whose name was Lilly, was first called in, he found that a fistulous ulcer had formed itself, from whence proceeded a very considerable discharge, and the health of the plaintiff was so considerably affected, that, in the first instance, he applied himself to effect a better state of body; and having administered soothing medicines for some time, he directed his attention more particularly to the knee, and at that time he discovered that a portion of the flint began to protrude through the skin, upon which he opened the wound, and extracted the pieces of stone which would be produced, and were of a very considerable size. Immediately after this operation, which took place in November last, the plaintiff began speedily to recover, and although he was still lame, the learned Sergeant had much satisfaction in stating that every hope was now entertained of his eventual recovery; and it was confidently anticipated that Mr. Lilly would be enabled to effect that which it was conceived the defendant would and could have done if he had been more vigilant in examining into the cause of the injury. The plaintiff, therefore, thought that his was a proper case to present to a jury of his countrymen; and he now left it to them to say, after they had heard the facts of the case detailed in evidence, what damages they would think sufficient to compensate him for the hours, and days, and months of pain, and misery, and anxiety he had undergone. Having stated this outline of the case, the learned Sergeant left it confidently in the hands of the Jury, not doubting that they would make the plaintiff such a reparation as they thought the nature of the injury demanded.

Mr. Garman, examined by Mr. Sergeant JONES.

I am an apothecary, and in December, 1826, resided in the Mile-end-road. On the 2d of that month I was called in to attend the plaintiff, who had fallen from his horse, and was lying in a cottage near to Bow. I examined his right knee, of which he complained, and found a considerable laceration on one side of the knee, and a hard moveable substance in the interior, lying about an inch from the knee-pan. I immediately washed the knee, and having cleansed it from the superficial gravelly particles which had adhered to the skin, I applied a simple lotion, and took him to his own house in Dean-street, Soho, when I advised that Mr. Stanley, who is a surgeon, residing in Lincoln's-inn-fields, should be called in. He was accordingly sent for, and I remained with him while he examined the knee, which he appeared to me to do in a proper manner; and after having done so, he directed that splints should be applied to prevent the motion of the joint. I applied the splints myself, as he had directed.

Cross-examined by Mr. Serjeant TADDY.—I knew Mr. Stanley only by report. He attended in about three hours after the accident occurred, and remained with the patient for about half an hour.

Mr. James Rolfe.—I am the father of the plaintiff, who is a tailor and draper, in partnership with me; he was 25 years old on his last birth day. I was not present when Mr. Stanley examined the wound; but when he came down stairs he prepared me for the worst, for he told me my son would have a stiff joint as long as he lived, and that I ought to think myself very well off if that were the worst: it would be well if he did not lose his leg; for it was a shocking fracture—it was much worse than a broken leg. He said that the patella, or knee-pan, was broken; that there was a piece broken off it; and, according to what he described to me, I should imagine about a fourth or a fifth. The splints remained on for about five or six days, when Mr. Stanley took them off, and bent the knee; but it gave my son such excruciating pain, that he was obliged to desist. When the splints were applied, they were made to press on a hard moveable substance, about an inch from the knee-pan, which put him to most dreadful pain, and he was continually crying out with it. He complained to Mr. Stanley, who told him he must have patience. The splints were put on again, and remained on for seven or eight weeks. Mr. Stanley attended sometimes twice a day for the first five or six days; and when spoken to on the subject, he said that the knee-pan was broken, and that the recovery would depend entirely on my son's keeping himself quiet. The hard moveable substance he pronounced to be a part of the knee-pan which he said was broken off. When my son became sufficiently well to be removed, I sent him to Hammersmith for change of air; but while there his knee became considerably worse, and two holes formed themselves in the knee, from which a considerable discharge issued. When I discovered this alteration for the worse, and saw that my son was daily wasting away, I applied to Mr. Lilly. This was in August; and from the time of the accident down to that time, my son was unable to attend to business for more than an hour in a day, and even that caused him great pain.

Cross-examined.—My son rode down in a chaise to Hammersmith, to see the Duke of York's funeral. Mr. Stanley had discontinued his visits a few days previous to this. I am not aware that he called on the day of the funeral, when my son was out. At any rate he did not disapprove of his going, for he said that the change of air would do him good, and that he could have as good attendance at Hammersmith as any where else. The impression on my mind is, that my son remained at Hammersmith for about a fortnight.

Re-examined.--Mr. Stanley said he might take moderate exercise as soon as he was able. The discharge took place early in June. Mr. Stanley was not apprized of that circumstance. My son always pointed out the seat of pain as being immediately over the hard substance.

Mr. Clius Lilly, examined by Mr. Serjeant Jones.—I am a member of the Royal College of Surgeons. In the beginning of September, Mr. Rolfe came to me; I believe on the 1st of September last. I had seen him occasionally before. He was then very much disordered, and very feeble. I examined his right knee, and discovered a hard moveable substance at about an inch to the inside of the patella. It was pretty near the surface at that time. I could feel with my finger and thumb a hard body, moveable. I told Mr. Rolfe, if it were my case, I should keep it quiet, and try to soothe the limb by applying poultices, and giving it perfect rest. I advised him, with respect to his general health, change of air, diet, and suitable medicine, for restoring his health. In the course of a month his health was very much improved. I examined the knee again in about a month after that period, two months after I had first examined it, and I found the hard substance had advanced nearer to the surface. At this time, it had, at one part, perforated the skin. I then enlarged the wound sufficiently for its removal. I removed it. It proved to be a flint. I have got the flint here. [Witness produced the flint, as well as the two other pieces that were got out of the wound subsequently.] The biggest I extracted first. I removed only one of the smaller pieces; the other came out in the dressing subsequently. I examined the knee-pan; I do not believe it was at all fractured. I don't pretend to answer the question, whether the patella could have been fractured, so as the fragment to have the appearance, or at all the resemblance, of the foreign substance described. Supposing the knee-pan had been so seriously fractured as to break off a substance like the foreign substance, I should certainly have discovered it. In my judgment, the knee-pan has not been fractured at all. Mr. Rolfe's health is now pretty good. He got well.

Cross-examined by Mr. Serjeant Wilde.—I have examined the knee, and found it is not fractured. I believe I had examined it twice or three times, before I found the flint perforating the skin. After I had seen the patient, I went into the country in consequence of my own health. Mr. Rolfe came to me two or three times; I did not go to him immediately on my return to town, which was in about a month after I left it. I discovered the flint to have perforated the surface. Before I went out of town, when I felt the hard substance, I thought it was bone. I heard a cursory history of how the accident occurred; it was from falling. I candidly confess, I did not know from what part of the limb this piece of supposed bone had come; I told Mr. Rolfe I did not know—I would not pretend to say. I recommended the limb should be soothed, and as much rest given to it as possible; afterwards, nature did her own work—I asssisted nature.

By the Court.—Mr. Rolfe took no exercise. He called on me; he rode to me in his father's chaise; I should think the motion of riding to me did tend to bring the substance to the surface.

Cross-examination resumed.—It is not unusual for a foreign substance that happens to be introduced into the human frame, or for a fracture, to work its way to the surface; it is an operation of nature; it is what is to be expected. It is not usual, when we have reason to suspect that the bone has been fractured, to irritate the joint by probing for it, but rather to wait for nature to perform the operation described; and especially when it is in such an important part as the joint of the knee. It would depend entirely on the situation of the foreign substance whether, supposing a patient receives an injury, and that a fracture is the consequence, or supposing that a hard substance is forced some way into the joint, or wherever the wound may happen to be, whether the treatment should be pretty much the same in either of those cases. Taking it, as in the present case, if the substance could be removed easily, without endangering the joint, I should certainly wish to remove it; whether it were bone or foreign substance, if it could be easily removed, I should certainly remove it. Whether it was bone or any foreign substance, and the professional man should think it could not be removed, the course of treatment would assuredly be the same.

By the Court.—When I first saw him, there was very little dischaage; there was a small fistulous ulcer. That did not make me think the substance was a foreign body. I thought it was a bone forcing its way out.

Cross-examination resumed.—I found the substance to have peforated the skin; that was certainly the first time I discovered it was a foreign substance.

Re-examined.—I saw the mark of the lacerated wound; it is impossible to say from the *cicatrix*, whether the wound was large enough to have admitted the entrance of the large piece of gravel produced; it is impossible to say from the scar. I certainly could not say from the scar, whether the original wound was large enough to have admitted that piece of flint. There was a scar. I cannot call to mind whether it was as large as this piece of flint. I saw it three times within the first month of my seeing the patient. If it had been taken out of the wound at the time it was first forced in, or at the time the wound was first formed, I have no reason to doubt that the whole would have been now healed. Certainly it would long befoie I saw it.

By the Court.—If any one had discovered it, and taken it out, of course the wound would have been healed.

Re-examination continued.—The first piece of gravel I took out, when I first saw the knee, was about an inch from the knee-pan; almost parallel with it, at the upper and inner part. There is a part I call the *capsule* of the knee; the substance was near it, but not in contact with it.

By the Court.—It was further up on the inner side of the knee. There would have been no danger, in taking it out, of wounding the joint. It certainly could not have been taken out of the original wound. I should conceive not.

This was the plaintiff's case.

Mr. Sergeant TADDY (with whom was Mr. Sergeant WILDE and Mr. Sergeant SCRIVEN) addressed the jury for the defendant, and after having expressed a sense of his inability to conduct a cause of this nature, although he confessed he felt no doubt as to its final issue, he proceeded to contend, that, from the evidence of the plaintiff's witnesses, there was a total want of proof of negligence or want of skill on the part of the defendant; and having passed a warm and glowing panegyric on the profession to which the defendant belonged, which he described as the most attentive, most skilful, and most learned body in this country, distinguished alike for humanity and generosity, he said he would call the most eminent and experienced of them to prove, that the plaintiff's treatment at the hands of the defendant had been highly proper, and that he could not have pursued a different course to that which he had adopted, without endangering the life of his patient. The learned Sergeant then reverted to the evidence given on the part of the plaintiff, which he insisted was entirely destitute of those facts which it was necessary should be proved in cases of this kind. Those who had been subsequently called in, it appeared, found no fault with the treatment which the patient had previously received; and Mr. Lilly had himself stated, that when he first examined the wound, he thought the bone had been fractured, and that the moveable substance was bone. There had been nothing like an atom of testimony given, that the defendant had been either palpably negligent, or that there was gross and palpable want of skill on his part, which it was imperative on the the plaintiff to have proved, to have made the defendant liable to this action. Under these circumstances, the learned Sergeant contended, there was no pretence for the present action, and, in consIusion, said he would call witness, who would place it beyond all doubt, that the defendant's treatment had been most correct, most proper, and most skilful, and there was not the slightest ground for accusing him of neglect, want of skill, or of proper attention.

Sir Astley Cooper, examined by Mr. Sergeant WILDE.

You have been in court, Sir Astley, during the whole time, have you not?—I have.

Have you attended to the account given by the witnesses called by the plaintiff, respecting Mr. Stanley and his patient?—I have given it all the attention in my power.

Upon the statements of the witnesses, do you, in your judgment, discover any want of skill, or care, on the part of Mr. Stanley?—None, whatever.

Supposing, Sir Astley, upon Mr. Stanley's examination of the knee, he discovered a hard substance had entered into the knee, as you have heard, what, in your judgment, would have been the course to be pursued?—The very one adopted. The case was a very doubtful case; if Mr. Stanley could not determine the nature of that case, I should say, that that man would be presumptuous who would pretend to decide upon it; because it is well known, in our profession, that no person is better informed in anatomy than Mr. Stanley. If he had probed the wound, it is very likely he might have destroyed the patient, or occasioned the loss of his limb. The smallest wound made into the knee-joint, such even as a probe would occasion, I have known destructive to life. I have seen an opening, not larger than would admit a crow's quill, when made into the knee-joint, destroy the life of the individual in less than a week. If he had made an incision upon this very doubtful body, why then the probability was, under the belief which he had at the moment, and which any man would have had at the moment, he would have opened the knee-joint, very likely, in making such an incision and in tearing the substance away; and in that way he would have inflicted the same injury as if it had passed into the joint.

Then you think he could not have made an incision without inflicting an injury in the joint?—It ought not, under the circumstances, to have been done.

Pray, Sir Astley,—this young gentleman met with the accident by being thrown from a horse,—would an accident of that kind be likely and probable to fracture the patella?

Mr. Serjeant Cross. Or what really did happen!

Mr. Sergeant Wilde. No, I beg your pardon; I wish to show, that a man is not to be considered ignorant of his profession, who infers that a man thrown from his horse might receive a fracture of the patella.

Witness. It is the only way in which I have known a longitudinal fracture of the patella to occur.

You have heard, Sir Astley, that this hard substance, in the course of time, approached the surface; was that a probable circumstance to occur?—That is the natural process usually, and it always happens.

I think you have stated, that, from your knowledge of Mr. Stanley, he was a competent judge?—I should certainly say, highly so.

Then I will only ask you, Sir Astley, if I may presume to put the question, if you had been in attendance, in what respect would you have varied the course he adopted?—In none.

By the Court. You say he is a very good anatomist?—An excellent anatomist.

Cross examined by Mr. Sergeant Cross.—Will you allow me to ask, do you consider that a surgeon is competent to form a judgment of the treatment of a case, without seeing the patient, and the nature of the accident?—I think, if all the circumstances are detailed, and clearly detailed, that a man can form a very good judgment.

Had you heard the circumstances of this case from Mr. Stanly before you came into court?—I heard some of the circumstances.

He stated the case to you, I presume?—He mentioned the case to me—some of the circumstances.

Very well, and upon his statement of the case, you communicated to him your opinion?—I did, Sir.

To the effect you have stated it to-day, I presume?—I believe so—I should think, exactly. My opinion, however, has been very much influenced by the evidence I have heard to-day, more particularly the clear and distinct evidence of Mr. Lilly.

Have you any reason to believe, from the evidence you have heard, that the knee-pan was broken?—I believe it was not broken.

If you had been attending such a patient, Sir Astley, for about seven weeks, and he had complained of one spot as the seat of all his sufferings, would you not have thought it your duty carefully and fully to examine the seat of such suffering?—If any new circumstance had arisen, I should certainly have paid attention to that circumstance; but if I had made up my mind at the beginning, as far as my anatomy taught me, I should not be very much inclined to vary my opinion, or to interfere by removing bandages.

But I do not know whether it is usual for surgeons, where they find a particular pain is seated, to consider a particular relief is wanted?—We would resort to all the means of relief we could.

But is it not usual to examine by sight and by touch?—I should say, a man who frequently moved a fractured limb, removed bandages, and so on, was an extremely unskilful surgeon.

That is an abstract question, Sir Astley; we are not talking of fractures, there is no fracture here. Here is an open wound on the inside of the knee; and no fracture, you have heard, has taken place; therefore we are not talking of fracture; but, I say, in the case of a wound, if the patient pointed out that wound as the seat of all his sufferings, would you not have thought it your duty carefully to examine it?—If I thought I could relieve the pain, I certainly should do all in my power.

Would you not examine it?—I certainly would examine with the utmost care a case of that kind in the beginning; and having, as far as I could, made up my mind as to the points, I should not vacillate as to my treatment.

Well, but I hope you do not call it vacillation, if the symptoms are not removed?

Mr. Sergeant Taddy. I must object to that question.

Mr. Serjeant Cross. If the pain was increasing, would you call it vacillation when none of the remedies had effect?—I should lessen the pain all I could; but I should not alter my general or specific treatment of the case.

Re-examined by Mr. Sergeant WILDE.

To prevent misconception, Sir Astley, you have heard described the course of examination adopted by Mr. Stanley?—Yes.

Does that examination appear to you to have been such as a skillful and attentive surgeon ought to have adopted?—I should say, really he has done every thing a good surgeon ought to have done under such circumstances, and that it appears to me he has left nothing undone.

Now, as far as you can, I would thank you to forget all your communications with Mr. Stanley, and to address your answers exclusively and entirely to what you have heard from the witnesses in that box; and I will again put the question to you I put before. Has any thing you have heard from Mr. Lilly, or the other gentlemen who have been examined, has any thing been stated by them which appears to manifest ignorance or want of attention on the part of Mr. Stanley?—I came into Court with some doubts; it was Mr. Lilly's evidence that made me so firm as I am upon it.

Mr. Brodie, examined by Mr. Sergeant TADDY.

I need not ask you, Sir, whether you are a surgeon?—Yes, I am.

Of St. George's Hospital, I believe?—Yes, Sir.

Have you been in Court the whole time?—I have.

Have you attended to the evidence?—Yes, I have, very closely.

Forming your opinion, Sir, upon the evidence you have heard this morning, do you find, in the course of the treatment of Mr. Stanley in this case, any want of skill or want of attention?—Indeed, I cannot say that I do.

When an accident occurs upon the knee, in consequence of a fall from a horse, is the fracture of the patella a very ordinary circumstance or not?—It is not uncommon, at least, it happens occasionally.

You have heard the state of the knee when Mr. Stanley was called in, two or three hours after the accident had taken place; was it easy, under these circumstances, to distinguish whether that hard substance was a piece of the bone, or was a foreign substance?—I should say, it would not be easy to make the distinction, judging, as well as I can, from the evidence.

Would it have been safe, Sir, to have probed?—I should think it would have been much more prudent, to have let the matter take its course.

And would you have recommended that which Mr. Stanley did, namely, rest, to prevent inflammation?—Yes, I should have recommended soothing treatment?

Do you know Mr. Stanley, Sir?—Yes, I do.

Is he a person of skill?—He is an excellent anatomist, and he is assistant-surgeon to a large hospital—a very experienced surgeon.

Under the circumstances of doubt, of what this hard substance might have been, was the treatment Mr. Stanley actually adopted, the best that could have been adopted?—Indeed, I should think, that any more active treatment would have been dangerous.

Cross-examined by Mr. Sergeant CROSS.

Would you have the goodness to describe what you yourself would have done, if you had been called in on this occasion, forgetting the evidence?—I should have kept the limb quiet, and have endeavoured to prevent inflammation.

Is that all you would have done?—Of course, I should have examined into the nature of the accident as closely as I could.

Is there anything more you should have thought it necessary to do?—I don't recollect anything.

But, then, you don't recollect there was a large flesh wound at the side of the knee; if you had found a large flesh wound, with a hard substance at the bottom of it, may I ask what you would have done in that case?—I should certainly have done nothing more than to have attended to the wound, as if there had been no hard substance.

That you would have done at first?—Yes.

Do you agree with Sir Astley Cooper, that there was no fracture?—O yes; as the case has turned out, there is no reason to believe there was a fracture.

You say it was not easy to discover, from the description you have heard, in the first instance, whether there was a fracture or not?—No.

But when all swelling had subsided, and the external wound nearly healed at the end of two months, what should you think of it then?—I should think it most likely, that even then I should not have been able to have ascertained what the exact nature of the accident was. I conclude, not only from the history I have heard of the case, but from this, that neither Mr. Stanley nor Mr. Lilly, who saw it, had been able to discover it.

But I need hardly ask you, whether a person who sees an accident within three hours after it happens, is not a better judge than one who sees it at the end of nine months?—No; I think the person seeing it at the end of three hours, is under a disadvantage.

Then, at the end of two months?—I should think there is no difference between seeing it at the end of two months, and at the end of nine or ten months, unless, at the end of the longer period, the foreign body had begun to work out.

Had you, before you came into Court, heard Mr. Stanley's account of this matter?—Yes, I had heard various accounts; the first account I heard, was from a friend of Mr. Rolfe's, the second from Mr. Stanley, and the third from Mr. Lilly.

But you have had personal communication with Mr. Stanley on the subject?—I have had a communication with him on the subject.

Re-examined by Mr. Sergeant Taddy.

Forming your opinion from what you have heard to-day, and applying your attention to that, is your opinion that which you have given?—I certainly have endeavoured to form my opinion from what I have heard to-day; and I certainly should say, I do not believe there is any blame to be attributed to Mr. Stanley,

Mr. Travers, examined by Serjeant Scriven.

You are a surgeon of St. Thomas's Hospital?—I am, Sir.

You have been so for many years?—For twelve years.

Have you any knowledge of the defendant in this case, Mr. Stanley?—Yes, I am well acquainted with him.

Have you had the means of forming an opinion of his professional acquirements?—Yes, Sir.

Perfectly, as regards anatomy?—Yes.

Will you state to the Court what opinion you have formed of his qualifications as a surgeon?—A very favourable one.

May I ask you, whether you have been in Court during the examination of the several witnesses for the plaintiff?—I have.

You heard the evidence, therefore, of Mr. Lilly?—I did.

From the evidence that was given by these witnesses, will you state to the Court, whether, if you had been called in in this case, instead of Mr. Stanley, you would have pursued any different course to that which he pursued?—The impression on my mind is, that I should have done precisely as Mr. Stanley did.

Cross-examined by Mr. Sergeant Jones.

Had you heard of this case before you came into Court?—I heard it from Mr. Stanley, and it was matter of conversation.

Very well, you heard of it. I want, first of all, to know, Sir, supposing an operation had been performed within an inch of the knee-pan, whether it might not have been easy to remove the foreign body?—It must depend on the situation of the foreign substance.

I am putting it as in the situation described; an inch on the inside of the patella?—But that does not describe the depth of the foreign substance.

Then, Sir, take it that the depth is not so great but that you can discover it and feel it with the probe?—I should think the situation rendered it extremely undesirable to cut down upon it as described.

That's extremely general; my question to you was, whether it would not have been easy, first of all, to have removed the foreign substance?—Decidedly not easy.

Would it have been practicable?—Practicable, certainly.

Then, I ask, supposing it had been a fracture of the patella, without a foreign body having been introduced, would the pain have been confined to the precise spot at which the fracture took place? (a pause.) Do you understand me?—I candidly confess, I hardly do.

There is a certain substance, which is either foreign or belonging to the bone; supposing it had been a piece of the bone, that is, of the fractured patella, forced from its natural place to where it was found; I want to know, whether the patient would not have suffered pain on the spot?—I apprehend the whole joint would have been pained.

Then, I apprehend the pain would not have been confined to the part, but have extended to the whole joint?—I do not believe the patient would have been able to discriminate the seat of pain, supposing the injury to have been such as was described; I believe it would have been so much diffused, that it would not have been confined to the patella or the wound.

Then your answer is, that he would have had a general sense of pain throughout the joint?—Yes.

Then I come to the question, which I shall hear answered with pleasure, whether or not the pain would have been confined to the precise spot at which the substance was found, or whether the party would not have suffered pain in the spot from which it was removed? Do you understand me?—I really am not able to give any other answer. I do not wish to evade the question.

No, I am sure you don't; but, supposing my knee-pan was broken, and a part of it removed to a distance; I wish to know, whether I should not have experienced pain at the spot where this large piece had been torn from, or at the place where the piece was found to lodge?—I do apprehend that both would have been pained; the pain would have been diffused.

I suppose you agree with them, it turns out there has been no fracture?—No doubt.

Re-examined by Mr. Sergeant TADDY.

You have been asked, whether it would have been easy to have probed and removed the broken part?—Certainly not.

You have said it would have been practicable, but would it have been safe or prudent?—Certainly not.

Mr. Green, examined by Mr. Sergeant WILDE.

You are one of the surgeons of St. Thomas's Hospital?—I am.

Have you been in Court during the whole of the present trial?—I have, Sir.

Had you received any account of this transaction before you came into Court?—Yes, Sir

Then I will thank you to dismiss that, as far as you can, from your mind, and confine your answers to what you have heard to-day. Did you attend to the evidence of Mr. Lilly and of Mr. Garman?—I did, Sir.

Is there any part of the treatment adopted by Mr. Stanley of his patient, which, in your judgment, was either unskilful or negligent?—None, Sir.

You have heard described the hard substance or piece of flint that was extracted?—I have.

Supposing that hard substance was from a fracture of the patella, would the symptoms be the same whether it was a foreign body or from the bone!—I apprehend the symptoms would have been more severe if it had been a foreign body than if it had been from a fracture of the patella.

In your judgment, could Mr. Stanley have ascertained, with any degree of certainty, from what you have heard to-day, whether it was the one or the other?—I apprehend, from the swelling of the joint at the time, as well as from the depth at which the foreign body was placed, that it was out of the question, by an examination with the hand through the skin.

From its situation, you say, an examination by the hand was quite out of the question?—Yes.

I wish to see that I correctly comprehend you; you have heard the account given by Mr. Garman?—Yes.

I want to know whether, from any thing stated by Mr. Garman, or any thing stated by Mr. Lilly, whether you have heard any thing stated to lead you to believe that a person of competent skill, could have ascertained with certainty, at the time Mr. Stanley was in attendance, whether it was a foreign substance or part of the bone?—I believe he could not, by such examination as would be prudent.

You heard, probably, described by Sir Astley Cooper, the probable consequences of a more minute examination—do you agree with him in the probability of those occurring?—Yes, I do; and I think there may be added to that, it was not very improbable the joint might have been laid open by the flint, though there was no external wound; and I think if an incision had been made down upon the foreign body, you would have had a wound into the joint, and the certain consequence of suppuration, inflammation, and very probably the death of the patient.

By the COURT.—Opening the joint would have been of serious consequence!—My lord, I think so.

Mr. Sergeant WILDE.—Now, Sir, taking the plaintiff's statement just as you have heard it from that box, will you state whether any part of Mr. Stanley's conduct denotes any want of skill or attention?—None.

Cross-examined by Mr. Sergeant CROSS.

You say, I think, the pain would have been severer if it was a foreign body than if it was a piece of bone?—Yes, Sir.

Now, may I ask if, during six weeks or two months, this foreign body had been pressed by a splint, in contact with the patella, to make it unite, and that without success, you would not have begun to think it was a foreign body, and the pain increasing!—I should think it very difficult to keep a portion of the patella, that had been so fractured, in contact with the bone, as to produce union.

But my question is quite different to that. Trying to press a stone in contact with the patella for two months, the pain continuing, would you not have begun to suspect it was a foreign substance?—I do not see any reason for believing that; if it had been a piece of bone that was so far removed, I should have thought it extremely difficult, by pressure or any thing else, to have procured union.

Very well; if all this had been done for two months without the least success or cessation of pain, would you have given it up?—I probably should, and for this reason, that if the limb had been kept in one position for so long a period, I should have feared the far greater evil of producing a stiff joint.

Re-examined by Mr. Sergeant WILDE.

Now, Sir, be so good as tell me—for after you have had the advantage of the cross-examination of my learned friend, I ask the question again—was there any part of the conduct of Mr. Stanley which, in your judgment, was unskilful or improper?—None, Sir.

Mr. Bell, examined by Mr. Sergeant TADDY.

Mr. Bell, have you been in Court during the whole of this trial?—I have, Sir.

You have heard the state of the limb at the time Mr. Stanley was called in?—I have, Sir.

Is it easy, Sir, to distinguish, under the circumstances under which you have heard that limb was, to say whether the substance alluded to was a foreign body, or part of the patella?—It appears to me, Sir, from the evidence I heard, that that body must have been deep, and for this reason—if it had not been deep, the wound would not have healed.

Mr. Sergeant Cross.—Speak up.

Witness.—And for this reason, that, if it had been placed superficially, the wound would not have healed.

Mr. Sergeant Taddy.—Taking it as you have heard it stated, was it easy to distinguish whether that substance was part of the patella, or a foreign substance?—I apprehend not, Sir.

Do you see any want of skill in Mr. Stanley in not discerning it?—I declare to you, Sir, I have endeavoured to put myself in the situation of Mr. Stanley, and I think I should have acted as he has done.

Was the treatment he adopted, namely, of recommending rest, and endeavouring to soothe the limb, and preserve it from irritation; is that the course that would have been pursued, whether it was a foreign body or part of the patella?—The whole question, Sir, depends upon the circumstance whether the fine membrane or capsule of the joint be torn or not; and if a suspicion enters into the surgeon's mind that it is torn, his business is to unite the external wound, by which there is safety to life.

In the present case, Sir, could any opinion have been then formed whether this was a foreign body or part of the patella?—Why certainly the suspicion must have entered into the surgeon's mind.

But, judging from the circumstances in which the limb was then, and what took place, could any other course of treatment have been adopted, than that which Mr. Stanley adopted, with safety and prudence?—I apprehend the surgeon balanced the circumstances, and that he concluded it was a portion of bone; being, in his opinion, a portion of bone, his conduct was perfectly natural and right.

Would it have been safe and prudent to have made an incision to have removed it, or to have inquired further into what it was?---Certainly not.

Cross examined by Mr. Sergeant Cross.

In suspecting it was a foreign body, would you have left the patient until you had ascertained a little better how that fact was? (A considerable pause.) I am sure you will answer candidly, Mr. Bell.—Certainly, Sir.

Now you say you should have suspected, at the end of two months, that it was a foreign body?

Mr. Serjeant Taddy. No, no, he has not said any such thing.

Mr. Serjeant Cross. Now, pray, is that so, Sir?—I speak as if I had been called in in the first instance with an open wound.

Then you say your suspicion in the first instance would have been, that it was a foreign body?—No doubt I should have suspected both.

Then after the end of two months, and hearing all that had passed in that time, would you have been confirmed in your opinion that it was a foreign body or bone?—From what circumstance?

The circumstances you have heard,—the continued pressing it to the patella, and its not adhering, and the unceasing pain to the end of two months,—would you then have formed an opinion whether it was foreign substance or bone?—If you press the question, whether from its not adhering to the knee-pan,—

And also from the pain being unceasing for two months?—After pain and inflammation of two months' continuance, I should begin to suspect that my opinion was not correct at first, undoubtedly.

Even if you had erroneously supposed in the first instance it was bone?—Even if I had supposed at first it was bone.

Then should you have thought it was a foreign body?—I should have been anxious.

But should you have thought it was a foreign body?—Not without evidence.

But you should have doubted?—I should have doubted.

Re-examined by Mr. Sergeant Taddy.

Was there any other conduct to be adopted than what Mr. Stanley adopted?—The great object being to procure adhesion, I think he acted right.

Do you perceive, in his subsequent treatment, any want of skill?—None.

Mr. Abernethy,* examined by Mr. Sergeant Wilde.

Mr. Abernethy, have you been in Court during the whole of the trial?—I have, Sir.

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* The following curious paragraph appeared in *The Times* report:—

" Mr. Abernethy was then called. The announcement of this Gentleman's name produced a considerable sensation in Court, and every eye was directed to the point at which he was expected to appear. Expectation was on tiptoe to hear and see this Leviathan of surgical knowledge, and cou-

Have you heard the evidence of Mr. Garman and of Mr. Lilly?—I have.

Forming your judgment solely on what you have heard from them, does the conduct of Mr. Stanley appear, from first to last, open to any imputation, for want of skill or want of care?—It does not.

Do I understand you, that your answer applies to the whole of his conduct?—I believe, if I had been attending the same case, I should have done exactly as he did.

Cross-examined by Mr. Sergeant Cross.

You have heard Mr. Stanley's account of this transaction?—Ho—hey—(pausing.)

He has communicated with you?—He did, a day or two ago. I never knew I was to come to this Court.

Re-examined by Mr. Sergeant Wilde.

But, Sir, are you able to discharge from your mind what passed between you and him, in order that your answers relate to the evidence you have heard to-day?—Entirely, as I have sworn.

This closed the Defendant's case.

Mr. Sergeant Cross went to the Jury, if it were possible, with double the confidence with which he first set out. The learned counsel for the defendant had contended, that palpable carelessness, or palpable want of skill, would have to be proved, before the Jury could return a verdict against his client; he, Mr. Sergeant Cross, knew not from whence such doctrines came. As to the defendant's want of skill, that had never been doubted; but would it be a sufficient answer, to an action brought against a coach proprietor for negligence on the part of his servant, by which he had upset a coach, to say, that the coachman was an excellent whip—one of the finest drivers in the country? The very circumstance of his being an expert driver, would aggravate the offence; because it would prove, that he had been doubly careless. So here, though the defendant possessed the skill which was attributed to him, it lessened not the charge of carelessness which the Jury, by their verdict, would, no doubt, establish. As to the defendant having brought a Jury of surgeons into Court, to each of whom he had told his own story, and from whom he had obtained their opinion before they were called, that was not the way a question of this sort was to be disposed of. It was easy enough for him and his attorney to have consulted a dozen of surgeons; and to those who entertained an adverse judgment respecting his conduct, for the attorney to say—we won't call you, Sir, we won't trouble the other gentleman, and so on, until he had got to the name of those who would come forward and say, all that had been done was right. The facts being laid before the Jury, it was only for the plaintiff's counsel to expect their verdict, leaving the amount of damages in their hands.

Mr. Justice Burrough, in summing up, said, that the Jury would return their verdict upon the facts which they had heard adduced in Court, and not upon the extraneous observations which had been introduced, and which really did not relate to the present case. If they could discover, taking the whole of the facts into consideration, that the defendant had acted unskilfully, that he was incompetent to the task he had undertaken, or had been guilty of neglect in the performance of his duty, their verdict would be for the plaintiff; but if, on the contrary, they believed he had conducted himself skilfully, and had been guilty of no neglect, then their verdict would be for the defendant. His Lordship then read through the evidence which had been given on the part of the plaintiff, particularly that of Mr. Lilly, which he considered the most material; and having concluded, he remarked that all those who had acted with, or subsequently to the defendant, had taken the substance for a fragment of bone, so there did not appear from that, to be any very strong ground for imputing ignorance or misconduct to him. Could the Jury collect, from the evidence, anything to convince them that the defendant had been guilty of any want of care, diligence, skill, or attention, their verdict would have to be for the plaintiff; but they must consider the evidence of the defendant's witnesses, which consisted of the testimony of many of the most, he might say, the most eminent surgeons in London, who swore most positively that, from what they had heard, in their judgment, the defendant had acted as they themselves would have done; and who agreed in stating, that if any orifice had been made into the knee, it would have

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siderable curiosity was evinced to learn how he, of whose bluntness so many stories have been circulated, would undergo an examination in a court of law; and perhaps it afforded some disappointment, when it was found that the learned Gentleman gave his evidence with as much of the *suaviter in modo* as any of the preceding witnesses had done."

Thus, it would seem, that the anticipated presence of Abernethy produced a sensation among the audience similar to what one might expect from the sudden appearance of a Bengal tiger, or of a hyæna. The result showed, however, that there was no ground for apprehension. It is extraordinary how such absurd impressions can have arisen respecting a Gentleman who conducts himself on all occasions with such urbanity!

been attended with great danger to the plaintiff. The learned judge then read over part of the evidence given by the witnesses called by the defendant, and concluded with these observations:—"Mr. Bell says, I should have doubted;" he does not say he would have taken it there was a foreign body there; he says, I should have doubted whether there might not have been some foreign body. Well, he might have doubted, still it was only a doubt on his mind, for no man can hardly conjecture, it is a thing that no man with his common senses could almost conjecture that a foreign body like this should be forced into the knee, and get a considerable depth into it by a fall from a horse. Now, as I said before, if you are satisfied there was want of skill and attention and proper attendance, and if you think all this was owing to the defendant's not discovering what nobody else could have discovered, and which he ought to have discovered, why your verdict must be for the plaintiff. Why, if it had been a portion of bone, there would have been no colour at all for saying there was any mistake or want of skill. As to putting on the splints, forcing the stone more down, that is begging the question, for if the defendant had known the stone had been there, it would have been the worst thing he could have done; but if he had thought the knee-pan was broken, and if it actually had been, he acted perfectly right. You, gentlemen, however, will consider the whole of the facts; if you think the defendant has acted with a total want of skill and attention, you will find for the plaintiff, and give such damages as you think he ought to receive. On the other hand, if you think he has acted properly, you will have to find for the defendant; and, taking the whole of the plaintiff's case, it seems to be a very weak case, unless you can say the defendant ought to have discovered this was all occasioned by the stone, and not by the fracture of the patella; and, in fact, if you think these very learned people are not come here to swear falsely—is it possible they would tell you a story contrary to their oaths? If, however, you think they can be prevailed upon; if you think there can be a sort of combination among them to tell a story they do not believe in their consciences, then you will form your opinion in that way: but if you believe the evidence of all these medical men to be true, and that it has been stated according to their belief, I should think your verdict ought to be for the defendant.

The Jury retired for an hour and a quarter, and then returned a verdict for the Plaintiff—Damages, *Thirty Pounds.*

STETHOSCOPE—DR. GREGORY—CLINICAL WARDS, EDINBURGH, &C.

To the Editor of THE LANCET.

SIR,—I notice, in a number of Dr. Macleod's Journal, that Dr. G. Gregory has, in detail, published the arguments by which, in the Westminster Medical Society, he supported his opposition to the use of the stethoscope. I do not wish to express any wonder, that the voice of hostility to the stethoscopic diagnosis should still be heard, and though I cannot impute any feeling, but that of the sincerity which reason alone could inspire, to the opinions of Dr. Gregory, I must say, that with others less worthy of high estimation in the profession, I can anticipate many causes influencing an opposition, which must be as ineffectual, as it is vain and frivolous. Of this, anon:

"It was argued, first," says Dr. Gregory, "that in the different modifications of pain, dyspnœa, cough, and expectoration, together with the concomitant affections of the pulse, tongue, and nervous system, the practitioner of judgment and experience possessed *abundant evidence of* ALL *the ordinary diseases of the* thoracic viscera, and that the stethoscope was requisite *only (if at all)* in *obscure* and *rare* cases."

This assertion I consider in perfect opposition to the investigations of all the modern continental authors, on "the ordinary diseases of the thoracic viscera." I refer particularly to the investigations, and the cases of Andral. Pneumonia itself, which seemed, from former inquiries, to possess the most prominent and obvious characters; so that, if the assertion of Dr. Gregory be true of any disease, it would have been esteemed especially true of inflammation of the lungs. Pneumonia is now proved to be not only *often* unattended with the ordinary symptoms, but to be *absolutely latent*, and so *masked* by varied "concomitant affections" of the nervous system, as to be mistaken, neglected, and fatal in the care of practitioners who neglect the stethoscope. I have myself observed, in the *fever wards* of hospitals, many cases of *simple uncomplicated* pneumonia, not only admitted as cases of fever, but actually treated by "*practitioners*" having high reputations "*of judgment and experience,*" by shaving, leeching, and blistering the head, without regard to the slight admonitions of a cough, certainly not appearing to them, at least, an "*abundant evidence*" of an extensive inflammation of the lungs, which, obstructing the pulmonary circulation, had occasioned a venous congestion, and consequent cerebral affection; but which slight cough could not escape the minute scrutiny of the attentive and accurate stethoscopist. I knew cases of this nature, thus mistaken by physicians who had seen practice in three quarters of the world—who had been, during their whole career, at the head of extensive hospital establishments—*titled, honourable men*, of "judgment and experience;" but, in which cases, a stethoscopic examination performed by a student or assistant, has discovered an extensive inflammation, including *two entire lobes*, or the whole of one lung, and which was afterwards successfully combated by the ordinary measures. What horrible fatality might have followed on such mistakes, I have learned from the dissection of similar cases, when this method of diagnosis had been neglected. I have seen the shameful error *exposed in the public theatre of a hospital*, in subjects scarified and blistered abundantly upon the head, brought to the table as "*obscure*" *cases of fever, unaccountably resisting the ordinary treatment*, but, to the consternation and public disgrace of the practitioner, proved to be cases of pleuropneumony, neglected — mistaken — maltreated—*dead*—because he had not resorted to the stethoscope. Had Dr. Gregory consulted the wounded and agonised feelings of such a man, with the public spectacle of his error in his eye, the roused and remorseful feelings of humanity speaking loudly within him, his sophistry would be found "*the idle wind and less*," when he inquired; if, then, he could deny that a sure and precise method of discriminating such a disease would not have deserved (*had it required*) the labour of years, or whether, having thus acquired it, that moment would be one, in which he could dare to pronounce it "a waste of time."

The intercurrent pneumonia of phthisis is *never* attended with pain, unless complicated with pleurisy; a cough is always present in extensive tubercular disease; its increase, when dependent on this inflammation, is often attributed by non-stethoscopists to the natural progress of this morbid degeneration; and the dyspnœa which accompanies it, I have heard constantly attributed to "*spasm*,"—"*disordered nervous system*," occasioned by the constant pulmonary irritation, or to fresh tubercular deposition. The expectoration in these cases is so slightly modified in character, that, most frequently, the cause of the aggravation of symptoms is not suspected by the physician who neglects auscultation. I have seen inflammation fatal in moderate tubercular disease of the lung—the cause remaining unsuspected, till it was demonstrated in the corpse. Had the stethoscope been applied, the diagnosis had been simple, precise, and certain; and though ultimate cure might not have been attained, months, perhaps even years of life, might have been given to the patient.

Pleuritis is frequently unaccompanied with the ordinary pain, and there is little cough and dyspnœa. It may therefore be neglected, and thence fatal, though easily discovered; and when decisively treated, as easily cured by the stethoscopist. The convalescence of pleurisy, when the active disease has been subdued, and all its symptoms have disappeared, is frequently fatally presumed, when *even half of the cavity of the chest* may be filled with seropurulent fluid, of the presence of which *no indication* is given by the ordinary symptoms. The stethoscope is here a certain guide.

The insidious bronchitis, frequently attendant on typhus, is latent—eluding the most experienced eye. I have seen the stethoscope applied to patients, in whom it was unsuspected, but, in whose lungs "the mucous rattle" generally developed, gave startling evidence of the *secret* disease. Shall I remind your readers, as though I wrote, *not* to experienced physicians and surgeons, of the consequence of an accurate method of distinguishing chronic catarrh and phthisis, empyema and asthma — of determining, before the operation of bronchotomy, whether, in trachitis and laryngitis, there be a concomitant inflammation of the lungs, which is extremely frequent, and fatal in such cases. Of the seat of a circumscribed empyema—of the distinction, which I have seen extremely difficult, between an abscess external to the ribs, and the pointing of an empyema, confined by internal adhesions — of the discovery of pneumothorax—of the certain demonstration of hydrothorax, rather, formerly, to be suspected than detected.

The stethoscope affords the means of discovering all these affections, when the ordinary symptoms (as they often are) are doubtful, delusive, or even nugatory. Shall I then be told, after the labour and devotion of years have been expended, and have satisfactorily established these facts, in the eye of the whole medical school of France, and in many of the English hospitals, that, as Dr. Gregory in his second objection affirms, "to gain satisfactory information from the stethoscope, *in such* OBSCURE *and* RARE *cases*, much previous experience is necessary, in the acquisition of which more time is WASTED, than is commensurate with the benefit obtained." (!) Are pneumonia (simple, lobulated, or intercurrent) and pleurisy "*rare*?" Will Dr. Gregory, knowing them to be *frequently* "obscure," consider the stethoscopic diagnosis "a waste of time?" Is the occurrence of empyema or hydrothorax "*rare*," and is the diagnosis always so simple? Has Dr. Gregory never *himself overlooked* the insidious bronchitis frequently attendant on typhus, or is it so "*rare*" in his practice? I hope that the patients of no practitioner of eminence may ever be aware, that he considers such disease "*rare*," seldom "*obscure*," and the acquisition of a sure *method of diagnosis*, "*a waste of time*."

In the third objection, Dr. Gregory says, "that granting, for argument's sake, an improvement in the *diagnosis of thoracic diseases*," (of course all are included,) "by the stethoscope, *no corresponding improvement in practice* has resulted," (ALL understood,) "such complaints being, to say the least, as fatal in Paris as in London, and the bills of mortality indicating here, in 1827, an actual excess of deaths;"—in what?—in thoracic diseases? No—not in *all* "such complaints," but "*in consumptive ailments*, over those of 1826." And, because consumption has not been less fatal, Dr. Gregory decides, that no corresponding improvement in practice has resulted, from the introduction of the stethoscope, *all* thoracic diseases being, *for this reason*, concluded to be as fatal as formerly.

Dr. Gregory appears, in his admiration of the stethoscope, to have secretly even entertained the hope, that consumption, the tyrant, the plague of life, should, at once, bow before the omnipotence of this modern discovery. But, since this has not happened, Dr. Gregory concludes, that cases of pneumonia, pleuritis, bronchitis, &c. &c., are as frequently demonstrated in public pathological theatres, to maintain the reputation of schools, but to disgrace those who neglect auscultation. What improvements may be accomplished in the treatment of consumption, by the accurate and minute scrutiny of the succession of morbid phenomena, which the stethoscope enables the physician to accomplish, it may be vain to speculate. If any means shall ever be available over the protean forms of this disease, certainly to the application of these must be necessary the most delicate, and intimate acquaintance with its nature and progress. No remedy can be applicable to all its symptoms, to every change, to each successive opposition of phenomena, which, *otherwise unknown*, are discovered by auscultation. If it be often triumphant, even seldom vanquished, in the practice of a stethoscopist, *nature* only, but not the *ordinary* physician, can arrest its ravages, when auscultation is despised." Dr. Gregory will astonish every one, by the astounding affirmation contained in his fourth objection. "When," he says, "diseases are so far advanced as to be plainly cognisable by the stethoscope, they are for the most part *incurable*." (!) *It is not so, I affirm*, in bronchitis, pneumonia, pleurisy, empyema, pneumothorax, hydrothodrax, &c. &c., even in hepatised lung, before induration has succeeded, sometimes not even in phthisis, all of which are "ordinary diseases of the thoracic viscera," and which may be cured. And in all these, and many others, the stethoscope enables the practitioner to watch symptoms minutely—to devise constant methods of amelioration—to obtain ease, quiet—to soothe—to arrest the progress of acute disease—to prolong life, and even to make the rapid decay of consumption often a smooth, easy, and gentle decline. The physician, who can undervalue such benefits, is unworthy of public patronage, and that they are real, I appeal to the experience of the modern medical world.

Dr. Gregory *objects*, in the fifth place, "that the diagnosis of hepatised lung (stated to have been so much improved by the stethoscope) was long ago fully taught, at St. George's Hospital, especially by Dr. Nevinson." Possibly so; granting this, without question or explanation, to be literally correct, is this *seriously* raised as an argument *against* a system, the high advantages of which, are at once fully and unequivocally admitted? Sixthly, Dr. Gregory says, "that frequent mistakes were made by Laennec himself, when thoracic disease was in an early stage, although his prognostications of the state of the lungs, immediately prior to death, were singularly accurate." This is true of the earliest stages of phthisis, ere the tubercular degeneration has become abundant, but of no acute disease, and scarcely of *any other*. Not Laennec, but even a young student of the stethoscope, may discover all these diseases.

In the seventh place, Dr. Gregory affirms, "that the stethoscope has been fully and fairly tried in the clinical wards of the Edinburgh Infirmary, but is now, in a great degree, neglected by the clinical professors." Now, Sir, to this objection I answer, that though a graduate of the University of Edinburgh, and admiring, not blindly, but sincerely, many of its institutions, that even an authoritative decision of that, or any other college, that the stethoscope is worthless, and the cultivation of this method of diagnosis "a waste of time," would be met with the scorn which it would deserve. It could not actually deprive us of the conviction of our senses—of the result of our investigations—of the treasures of our experience—of truth—but the assertion is *a mistake*! Having been myself a clinical assistant to two professors, and *one year* house-clerk to the Royal Infirmary, intimate with its politics, being a constant resident of the hospital, having friends active as students and assistants in those wards, and having been politely honoured with the free discussion, and interchange of opinions with many of the very learned and amiable professors of that college, I am entitled to affirm, that the stethoscope has truly " been fully and fairly tried," in the clinical wards of the Royal Infirmary, but that so far from its having been even " in a *degree* neglected by the clinical professors ;" that I have personally been frequently desired by them, to make stethoscopic diagnoses during the last year, of patients in these wards; that in few, if any, cases of thoracic disease, are diligent and frequent stethoscopic reports, neglected in the case book of these wards; that I know that some of the professors seize every opportunity of personal examination, and demonstrate in the pathological theatre, always remarking the accurate diagnosis afforded by the stethoscopic signs—nay, two of these gentlemen attended a course of lectures delivered by Dr. Cullen, now the ardent and accomplished physician of the hospital, thus giving public testimony of their approbation of the system. With this last, end Dr. G.'s objections ; bye and bye, it will be dangerous—it will be suicidal to professional reputation to object to the stethoscope. The public ear is awake—rumour speaks with a loud voice and a hundred tongues ; the public is acutely sensible of impressions, and having personal experience of the advantage to be derived, it will neglect those who may consider labour in the acquisition of professional knowledge " a waste of time." The labour is, however, greatly exaggerated, and, had I space, I might show how, by the aid of an instructor who would make the subject familiar by public demonstrations, the student might, with facility, acquire the requisite skill.

I am, Sir, yours, &c.
J. P. Kay, M.D.
40, King-street, Manchester.

VINDICATION OF THE LONDON COLLEGE OF PHYSICIANS.

To the Editor of the Morning Herald.

Sir,—The gentlemanly intimation conveyed by the London College of Physicians, in one of your recent papers, stating that the question of its chartered rights would be decided in a court of law, appears to have given great offence to some *Scotch Doctor.* I beg, through the same channel, to offer a few observations in reply ; and shall commence by remarking, that a degree of education, rarely to be met with among the medical classes in Scotland, is requisite to estimate what is gentlemanly and dignified on the part of an opponent. The London College of Physicians have never condescended to enter into any public discussion of its privileges ; it has never interfered with those of the colleges of Dublin or Edinburgh ; none of its fellows have ever attempted to practise in those cities, nor have they ever assumed a right to do so, in defiance of their colleges. It has hitherto sought, *merely sought, to preserve its own rights,* originating in royal munificence and legislative enactment, and, in so doing, to uphold the privileges of the two English Universities. How far these Universities are, or are not, competent to teach the sciences connected with medicine is not the question ; but, even if it were, there would be no difficulty in establishing their competence, or in showing that a doctor's degree never was conferred, at either Oxford or Cambridge, upon any one but a superiorly educated man. Equally easy, would it be to prove, that our English physicians are not mere *theorists,* and that a population of from ten to twelve millions affords to the English graduate *almost as many opportunities* of acquiring sound practical knowledge, as a population of nearly two millions does to the Scotch one ; indeed, in Scotland, the opportunities of attending hospital practice may be said to be confined to the towns of Glasgow and Edinburgh, each of them boasting a population of one hundred thousand ; whereas, the hospital practice of many commercial and manufacturing towns in England far exceeds either of these infirmaries. If your *Scotch doctor* doubts, let him only visit a few ; the Birmingham, Leeds, Liverpool, Manchester, Nottingham, or York infirmaries. The population of several of these places is considerably above one hundred thousand ; to say nothing of London, where we have one parish exceeding in population any city in Scotland. In this one, there is an infirmary and *small* county hospital, containing, all the year round, more patients than either of the boasted northern infirmaries! English physicians, forsooth, deficient in practical knowledge! Ridiculous! Fortunately, we Englishmen are satisfied with our own graduates, and content to receive such as our college license. The Fellows of that college, I unhesitatingly assert, have acted with the greatest liberality towards their Scotch and Irish competitors (not rivals) : every privilege enjoyed by themselves (short of the fellowship and government of *their own* fraternity) they readily and freely grant to every candidate, who is content to undergo the usual examinations in the Latin language. Nay, they have gone further, they have made a *loop-hole* for the " *Savans*" of the high schools of Edinburgh and Glasgow *to creep through,* in case they should not like to display *their Latinity* ; those worthies may be examined in *homespun English,* and admitted as extra-licentiates. What more can these " wooden spoons" desire? No one denies that a Scotch graduate may not be a clever man; no person denies he may not be an educated one; but it is well known that the *degree* is no test of either, whereas, the license of the London College *stamps a value* upon the foreign diploma it did not before possess; and, until it has received *that stamp*, the man who would attempt to place Scotch graduates on a par with English ones would compromise his own intellect. It is the glorious beauty of an English University that, before any man can obtain its degree, in any science, he must have passed through that course of general education, and acquired that knowledge of literature, both ancient and modern, which constitutes *the well-informed gentleman;* hence it is that the English clergy, as a body, are, beyond comparison, the best scholars of the age, and possess more learning, theological and general, than any equal number of men in the world! What a Scotch University is, let those who boast its degrees explain; and when your *Scotch Doctor* asserts, that one-third of those who graduate in Edinburgh are Englishmen, I have no wish to controvert his statement. But I will endeavour, for the information of your general readers, to throw a little light upon the subject; and, as one fact is worth a dozen arguments, I shall briefly state that, in one of my recent excursions, a lad was pointed out to me who had been employed five years in a druggist's shop, selling tea, coffee, snuff, paint, and quack medicines, occasionally making up prescriptions and horse-balls. At the end of that period, being grounded, I presume, in the elements of the science, he was removed to Edinburgh, and in less than three years, he returned a *Physician*, *alias* a *Scotch Doctor!* I was so much amused with the tale, that I chose to satisfy myself of its truth; not that I had any doubt in my mind as to the facility with which Scotch degrees could be obtained, having met with a few doctors of that nation, who, if they were at all acquainted with the dead languages, were miserably deficient in the living ones. Take the one I have given as a sample of the English youths sent to Edinburgh to graduate; no English gentleman, who, from his rank in society, has a right to educate a son for the highest walk of the medical profession, dreams of doing so. Learning and respectability are, in his estimation, superior to cheapness and humbug. There is not a professional man, either theological, legal, or medical, acquainted with the state of science in the three kingdoms, who will not proclaim the superiority of the English Universities, and, in comparison, place Dublin next to them; after which follow the Scotch Colleges, in the order of precedence the *Scotch Doctor* may choose to place them; as for comparison, *much less, competition*, with an English University, it is out of the question. Why do the Scotch nobility and gentry, who can afford it, send their sons to our Universities? Why are the most celebrated Scotch physicians proud to obtain our degrees? Why did the father of the *great*, the *amiable*, and *lamented* Baillie—he a minister of the Kirk of Scotland—why did he educate his son at an English University, and that, too, in the days of Monro (*secundus*) and Black, if the Scotch were so much *better*, as well as so much cheaper?—the first a consideration grave and fitting for any man; the last peculiarly adapted to a Scotchman. That what your *Scotch Doctor* calls "learning," is cheaper in his country than in England, is most true; but, as Dr. Johnson observes, the scholar will have only a mouthful in the one country, while he must have a bellyfull in the other before he obtains a degree. To confine myself to the medical profession, I may observe, that five years are requisite to obtain a bachelor's degree, and eight that of a doctor, in an English University; but, to turn to its humbler walks, in England, you give a premium of 300*l*. or 400*l*. to place your son for five years with a respectable member of the profession; you have then to support him for two years more in London at a hospital and public lectures, costing you as much more. Now, Sir, one half this time, and one half the expense, will make him a physician in Edinburgh. In point of fact, the generality of Scotch graduates are not so well educated as the respectable general practitioner in England; and yet it is contended that these gentry should come into England whenever they please, and compete with elegantly-educated and highly-gifted members of our Universities! Why not bring over a body of Presbyterian clergy, and, sinking their Calvinism, fasten them upon our church livings? Your *Scotch Doctor* might as well propose to inundate us with divinity scholars as with medical ones—to break up our academical institutions in one profession or science as another! For both articles of instruction are alike cheap in Scotland. Indeed, we may as well submit to have our courts crowded with Scotch advocates and writers to the signet: the act of union must legalise one as much as the other—if, according to your correspondent's mode of reasoning, it is to legalise any innovation upon our laws. As to his *balderdash* about the union of the three kingdoms, and the amalgamation of their laws, it is incomprehensible. No part of the common law of this kingdom has been amalgamated with that of Scotland—no part of its ecclesiastical—no part of its civil—no part of its academical. The Scots have obtained the partial introduction of the trial by jury, but we have amalgamated in nothing. They covenanted, at the Union, to retain their criminal, ecclesiastical, and academical laws and institutions, and, in GOD's name, let them do so, but do not let us be cursed with their "excrescences."

Your *Scotch Doctor* may rest assured, that the English bar boasts many members educated in one or other of those matchless seminaries, Oxford or Cambridge, who would gladly embrace the opportunity of raising their reputation by advocating the cause of the College; that a jury of English gentlemen will support the venerable and virtuous institutions of their country; and that there is not a judge on the bench who will not uplift his hand to prevent the statutes of this kingdom being prostrated at the shrine of northern ignorance or cupidity.

I am, Sir,
Your very humble servant,
A RETIRED GENERAL PRACTITIONER.

Devizes, Dec. 11.

VINDICATION OF THE SCOTCH GRADUATES.

To the Editor of THE LANCET.

SIR,—As your pages appear to be ever open to the discussion of questions of professional and public interest, permit me to request the early insertion of a reply to the Correspondent of the *Morning Herald* of the 3d of January, who signs himself, "A Retired General Practitioner." The signature is, I believe, a fictitious one, and the letter smells strongly of Pall-mall East; but if genuine, it is strange the College of Physicians should find an advocate among a set of men whom they pretend to regard as no better than mechanics, except when it suits their purpose.

The question at present pending with the College of Physicians has, I have observed, hitherto, been treated as if between *two* parties only; but there is a *third*, viz., the *public*, which I shall, through the medium of your useful Journal, endeavour to enlighten on a subject deeply interesting to them, and one on which they have the fewest lights to judge by. I am far from wishing to defend what is wrong in Scotch Colleges; but I think I shall make it appear, the London College have little reason to be obliged to their Devizes advocate. This volunteer endeavours, with great art, to enlist on his side the lawyers and clergy of England, by saying, the Presbyterian clergy, and writers to the signet, might as well be brought over as Scotch physicians, and that the act of Union must legalize the one as well as the other. It is well for the patients of such an old dotard that he has *retired*, if he be no better apothecary than advocate. He, perhaps, does not know that at the Union the laws and religion of Scotland were stipulated for, because they *differed* from those of England; but medical science, and the effects of remedies, are, I presume, the same in both countries. But does any law exist which prevents a Scotch clergyman, or lawyer, following their profession in London, or within seven miles? The former, I presume, may preach if he can get a congregation, and writers to the signet are resident for the purpose of elucidating the Scotch laws; but the comparison of the two cases is so absurd, that it could only have been made by an old woman. His argument respecting the population of twelve millions affording larger scope for practice than two, is equally absurd—as if the latter did not afford cases of disease sufficient. Among which population did Hippocrates make those observations, that have immortalised his name? I hold it an easy task to prove, that the London College, not by their charter, but their *by-laws*, which are at absolute *variance* with it, have done all in their power to impede the progress of medical science; and I shall proceed to enable the public to judge of the truth of this. If the College had adhered to the spirit and letter of their charter, they might have accomplished the good it was intended to promote; viz., have put down quackery, and prevented uneducated men practising on the king's subjects. Have they ever attempted this? Does not the town abound with quacks? Who are the men they have at times threatened and prosecuted? Why, men of acknowledged talent and ability—the late Dr. Dick, Dr. Stanger, and now Dr. Harrison, by whom they have been bearded; who defies their power, and who, the moment he received their *admonition*, put his name, for the first time, on his door. Why do they not prosecute him? Why content themselves with the *gentlemanly intimation* so lauded by the old man of Devizes? What! a public body intrusted by the Legislature, *as they pretend*, with the dearest interests of the community, allow itself to be bearded by a graduate of Edinburgh—an interloper, and an interferer with their monopoly, and be satisfied with a *gentlemanly intimation*? They either have, or have not, a sacred duty to perform to the public; they have a duty to perform to those who have paid them for their licence; do they, or have they, ever attempted this? Their power has alone been tried against men who have been esteemed by the public, as those above-mentioned, who therefore interfere with the *fees* of these college worthies. *This* is the sore place—*this* it is excites their anger and zeal, not the public good—*this* the cause of their *threats*, for they dare not proceed to trial—threats held out to prevent men, who have studied and know their profession, settling in London; or to make them pay to the support of their college if they do, and bind them by *by-laws* they keep *secret.* The poor shuffle of not having evidence, is unworthy in the extreme.—What! a respectable body proceed to admonish a man they could not prove guilty? As for evidence, I am told the shops have more prescriptions of the gentleman in question than of any of the fellows. Why not have recourse to the same means they formerly did in procuring evidence. Is it credible they would *only* have shown their teeth if they had the power to bite? The truth is, *after* they had consulted counsel, they became more civil, and inserted that *gentlemanly notice*, in the public papers, which has made them the laughing-stock of the community at large. The holes they have left to creep out at, show the impotence of their threats. If they have the power, they are bound to protect those who have paid for their licence, which these fellows are said, on all occasions, to represent as about as honourable as a licence to sell beer or perfumery. Those, indeed, who have the latter are protected by the law; but the licensed doctor pays for protection to those who pretend to grant and have not the power to afford. After the *gentlemanly intimation*, that physician must be an idiot who accepts of their licence; and if this source of revenue fails, the new college will soon want support. It is said that the fellows, however they differ among themselves, never fail, when an opportunity offers, of insinuating the distinction between themselves and a licentiate, when one of the latter is wished to be called in, should he be a Blane, a Tierney, or a Wilson. The public would do well to inquire, what share of the improvements in medical science is to be traced to the College? The rest of the profession would have no reason to regret the inquiry. In the mean time, let us look back to the knowledge displayed, when questions of great public interest have been referred to them. We can all recollect the absurd figure their President cut when examined on the subject of the Walcheren fever, he being at the same time *Physician General to the Army!* Is their body capable of advising Government on the quarantine law, or any similar subject! Did they not oppose vaccination, and expose their ignorance on the subject of the Penitentiary? It ought daily to be published, that the by-laws of the College are at variance and contrary to the *spirit* and *letter* of their charter. Few of the profession, even, know that not one of the original members of the College, to whom the charter was granted, belonged to either Oxford or Cambridge, or that the by-laws by which the fellows can only be selected from these seminaries, was only made *in the reign of George II.* The charter was addressed to the commonalty, and all men *ejusdem facultatis* and by it every man possessing a degree *has a right, by the charter,* to be examined. Dr. Harrison has offered to appear before them, which shows he is a scholar and conscious of his medical knowledge; but he disdains to accept the *licence*, which has, I believe, been repeatedly offered him by this Corporation, whose impotence being now exposed, thus begin to conciliate those whose weakness and vanity they can work upon, and whom they suppose have the power to injure or serve them. Witness the recent admission to the fellowship, of two men who have notoriously practised as apothecaries. Why, a short time ago, such admissions would have been looked upon as contamination; but an appearance of liberality suits their purpose at this moment, as on former occasions.

When the Government found how little they could obtain from the President of the College, and Physician General to the Army, to guide them, when the fever at Walcheren was destroying our brave soldiers, who did they select to investigate the subject?—one of their body? No,—Sir Gilbert Blane, a *Scotch doctor*, who has frequently refused the proferred *honour* of their fellowship! Let it not be supposed that I wish to advocate the venality of some of the Scotch Universities; it will, I trust, appear that I have only the public good at heart, and wish to enable the public to judge for themselves in a question which deeply concerns their interests. The Scotch colleges have found themselves degraded by not having their degrees acknowledged in the capital of the empire, and by feeling that no talent or experience—not the medical lore of a Cullen, a Monro, or a Black, could entitle these illustrious men to practise in London, or the inhabitants of the metropolis to profit by their skill. Not only the metropolis, but a district of seven miles round, is supposed to be in a similar predicament; though neither the President, or any of the Fellows, can say where the centre of this privileged circle should be placed, whether at Whitechapel or Hyde Park Corner. All this would be bad enough had such pretensions legal foundation, but the public should know, no such *law* exists; no by-law, made by *interested individuals* in the reign of George the Second, can alter the charter of Henry the Eighth. This by-law was made to keep to themselves the lucrative practice of the capital; and now that its justice is questioned, they cry out, the clergy are in danger of having their livings taken from them by Presbyterian parsons! The English clergy are protected by the laws of the empire; but was it ever contemplated, at the Union, that a Scotch physician should not have the power of practising his profession in any part of the kingdom, and be even denied *the privilege of being examined*. It is of this Dr. Harrison, and hundreds of others, complain, who are willing to give *proofs of their knowledge*; but, because they have not obtained it *at certain places*, they are to be degraded in the eyes of the public, by a corporation deeply interested in their being kept at a distance of *seven miles from London*. Now, in spite of the old man of Devizes, talent will step in, and men who have studied their profession, where alone knowledge of it can be obtained, who do not affect to despise anatomy, midwifery, and other branches of medical art, (*absolutely necessary to every conscientious practitioner of it*,) will soon break up the monopoly of the college aristocrats, and show the *real aristocracy*, and higher ranks of the community, how they are gulled by these college worthies—will show them the improvements made in the art by men not allowed to practise in the metropolis, and the chance they and their families have of profiting by the resources of medicine. Our legislators and courts of law will soon inquire into the rights of the *Royal College of Physicians*, as they call themselves, not as their charter calls them. The lawyers have already told them, they cannot come into court by this title, or perhaps any other; and have advised them to get out of their present scrape by pretending they want *evidence*. Why, what *evidence* can they *ever* get, if a man, putting his name on his door, and signing prescriptions which are publicly dispersed over the town, is not evidence? Has he not met their own Fellows in consultation, and signed prescriptions before them? But they are too *gentlemanly* to take advantage of such things! This may be; but can they be honest men, to sell their licences, and permit hosts of interlopers to interfere with the privileges of those whose money they have taken? If a man pays for a licence to sell any article, the law does not allow another to set up next door and sell without such licence. Not so the College; any charlatan may practise. It is only when one has made himself known to the circle they move in, that they try to put him down, and *threaten* to prosecute. By confining the fellowship to men from Oxford or Cambridge, they have established a monopoly in a corporation which extends the baneful effects of such bodies over the whole empire; and, unfortunately for the interest of the community, they have the opportunity of throwing dust in the eyes of the great, who are content, while in London, to be fleeced by these worthies, who are, for the most part, ignorant (and pride themselves on their ignorance) of those branches of medical education absolutely necessary to enable them to judge correctly of nine cases in ten that come before them; and this for the sole reason, that they have resided a certain number of months at the same places of education with themselves. It is evidently the interest of the Fellows of the College to keep all medical talent, superior to their own, at a distance from the metropolis—by any means to get it beyond the seven milestone, reckoning, I suppose, from Pall-mall East. At Devizes, the *wooden spoons* may do the best they can for their patients, so that they hand them over to the aristocracy when they visit the metropolis.

It is far from my wish to detract from the merits of our English Universities; but will any one pretend that medical knowledge of any real utility is to be obtained there? It is as much impossible that knowledge of the *practice* of physic can be obtained there, as that of practical navigation. If it is only to be obtained elsewhere, it is all that is contended for. *Whoever obtains it, and is willing to give public proof of his possessing it*, ought to be allowed to practise his profession any where, for his own benefit and that of the community. Let the ordeal be common to all, and let not a man be allowed to attend a patient at Richmond, if it is held illegal for him to prescribe at Chelsea. Nothing so absurd was ever contemplated by any legislature, or authorised by any charter; and the truth is, there exists no law to prevent him. Let us trace the career of a thorough-paced Fellow of the College from the time of his leaving the University. How many, secure of their degrees, devote themselves to the dissecting-room, or to the acquirement of a knowledge of the diseases of females and children, or that attendance at the bed-side of patients in hospitals, where the phenomena of diseases and effects of remedies are alone to be studied, and which enables the young physician in future life to apply appropriate means of cure? Far from this, the young Æsculapius comes to town, full of importance,—canvasses for the appointment of physician to an hospital, is supported through thick and thin by the president and fellows of his college, to the exclusion even of the oldest and most experienced of their licentiates. In short, by the most unworthy means, he is elected, and starts, not only as a practitioner, but as a preceptor and teacher of the practice of physic to the rising generation, who are obliged to fee *him* for attending the hospitals. Hence the *throat cuttings*, the tapping of pregnant women, and other horrors only of late made public. The few lucrative appointments belonging to the profession under government, are monopolised by this

Corporation most unjustly. There are numbers of medical men who have gained experience in our fleets and armies, whom the government might most advantageously employ; and it would be some reward for their toils and labours in the King's service. How these situations are now filled, and the duties executed, will soon be made public. What has the College ever done for the benefit of society, or the advancement of medical knowledge? Let us look to their published Transactions, especially those of late years. How unworthy a body pretending to superior education and knowledge! The few celebrated names on which they pride themselves, obtained their knowledge in schools far differently constituted to the English Universities; where it is not disputed, any other knowledge but that of the *practice of physic* and its various branches, can be obtained in perfection: they never have been regarded as medical schools, and those who obtain degrees there, always take care to let it be known, that they have spent some of their time at the vilified school of *Edinburgh*, as the wise man of Devizes calls it, or at some other, where there are *patients.* The instance of Dr. Baillie being sent by his father, a minister of the kirk, to an English University, is quoted in triumph by the philosopher of Devizes. We are not disposed to question the justice of the epithets he bestows on departed worth, but the course of his education differed *in toto* from that of a thorough-paced fellow. He succeeded to the school established by his relative, *a Scotch Doctor*: he was an anatomical physician, and so distinguished. His being a teacher of anatomy was the foundation of his fame and fortune; and if he had never been enrolled among, or his mind warped by, a narrow-minded corporation, he would probably have added, from his great opportunities, to our stock of medical knowledge. From his popularity, and the only work (much overrated) by which his memory is distinguished, the College have been always of late anxious to put his name forward; but I have heard he was not in his life-time esteemed by them a *pure*: but he is gone, and they will not easily replace him. Let those who have attended *post-mortem* examinations with thorough-paced fellows, say what pretty figures they cut on such occasions, what additions to pathology may be expected from men who have studied anatomy at Oxford. Would Harvey and the few others, real ornaments to their College, have done honour to their age and country, if their education had been confined to the English Universities, where the habits acquired little fit any one for the studies and scenes a medical man must encounter, to become master of his art? I would rather trust my family to the individual whose career is so exultingly brought forward to the public by the retired practitioner, in the preceding letter, provided he be a man of good natural understanding, and employed the three years he spent at Edinburgh as he might have done, than to most of the College. No man is born a physician, though he may be a poet—*Non nascitur sed fit.* He only can practise his profession who has studied it at the bed-side of the sick, not where there are *no sick.* He may *talk medicine*, and many of them do pretty well; but he is at the mercy of the attending apothecary, and often at that of the nurse, when he comes to practise. It is dreadful to think of men being elected to fill stations of public trust and confidence, with scarcely any qualification but that of what is called *interest*, and that the well-meaning persons who support our hospitals, are deceived, for the most part, by those who ought to enlighten them.

This letter has grown to an unforeseen length, and I am obliged to postpone an examination of the famous Charter; which *Bug-Bear* has for nearly a century deprived the metropolis of the real medical talent it might have possessed. The College will say, that any man with certain qualifications may obtain their licence; but will any physician of spirit or prudence hereafter accept of this, when he sees it confers no protection, no honour, or advantage. A miserable shift, I am told, is made use of by the Corporation to make a distinction between the Fellows and Licentiates, by the introduction of a few Greek words in the examination of the former; the latter having the compliment paid them of being supposed ignorant of the Greek language. The retired practitioner informs us, they have left another *loop-hole*, for men even ignorant of *Latin* to creep through, and practise on their fellow subjects beyond the seven milestone: he tells us, these are called extra-licentiates, or, as he politely calls them, *wooden-spoons.* This piece of information I hail as something that must rouse the peers and members of the lower house, who reside with their families a great part of the year on their estates; during which, the health and lives of themselves and families are to be trusted to a set of physicians, who are not supposed to be able to read a Latin prescription! It is impossible such absurdities can be allowed longer to exist. If the College of Physicians are inclined to prevent their own extinction by a revision of their by-laws, they have perhaps an opportunity of showing a degree of wisdom never yet shown by a corporate body; but my opinion is, that the time for their doing either good or evil, is gone by; in fact, that they have the power of doing neither the one or the other. The practice of physic has been gradually going out of the hands of physicians into those of the surgeons, in consequence of the blindness and folly of the Corporation: they know this full well, but can do nothing against the surgeons, who take the oyster and give the doctors the shells. They are even obliged to meet them in consultation. By-the-by, report says, Dr. Harrison has had it intimated to him by more than one Fellow, that they will not refuse to meet him hereafter, when there is any thing to be got. The pretensions of the Fellows to superior knowledge, is of a-piece with the rest; but knowledge and improvement in medicine are now diffused in a manner quite unknown to former times. The most difficult operations in surgery are performed, and soundest principles of medical science are to be found, in remote parts of the country, much more remote than Devizes; where the retired practitioner (if he exists) may find himself hereafter known by the name of wooden-spoon, for his folly in putting himself forward to defend men who affect to despise him, and for interfering in a question far above his intellect. The time is fast approaching, when medical talent will not be confined 'by mile-stones; and as for the College claiming merit for not interfering with other Colleges, the latter owe them little on this score, as their only object has ever been to secure the *metropolis and seven miles round* to themselves. Give them the pickings of this favoured circle, and they are content to leave the population of Edinburgh and Dublin to their own doctors, *alias* wooden spoons; nay, even the rest of England, to those who have been weak enough to pay for an *extra licence*, and the privilege of being examined in the vulgar tongue! Such is the philanthropy of this Corporation, who can admit not only Scotch and Irish doctors, but Scotch and Irish apothecaries, too, when it suits their purpose. The *gentlemanly intimation*, however, has acted as an *invitation* to Scotch and Irish physicians to settle as soon as convenient in the metropolis, by proving they are in no danger of prosecution from their *superiorly educated brethren*, with whom, henceforth, they may share the loaves and fishes. What would be said, were it proposed by the bench of bishops to ordain a set of clergymen to preach within the seven-mile-stone, and to prohibit all the rest from doing so; yet this would not be more preposterous than the laws of the College. Much still remains to be said on this subject; but as I am one of those who are determined to set off for the metropolis, as soon as they can with convenience, I shall be able to communicate more easily with you hereafter, and, in the mean time, subscribe myself,

Your obedient humble servant,

MEDICUS.

MEDICAL ASSISTANTS.

To the Editor of THE LANCET.

SIR,—YOUR instrument has been the means of relieving several morbid conditions of medical and surgical diseases, it has not only destroyed the fungous growth of many self-elected puritans, but has roused into action the lethargic slumbers of as many Hospital drones; in fact, it may be truly affirmed of this invaluable remedy, that it has penetrated the most secret recesses of the whole medical constitution, and bids fair to rear a new system founded on more stable and enlightened principles; but, Sir, whilst every one must acknowledge its great energies to eradicate destructive and hereditary diseases, it is not surprising that a few local affections should have been but very partially considered; the wonder is, how so much could have been accomplished in so short a space.

As a retiring member from this infectious body, I beg to call your readers' attention to one of the most palpable derangements of this mass of corruption; and whilst I describe the symptoms of this complaint, I assure you it is not only contagious in its nature, but the most prevalent in every season and in every year. That, to which I now allude, is the unjust remuneration which medical assistants receive; this, when duly considered, will alone be sufficient to awaken a lively interest in the mind of every impartial and enlightened man, even though it may encroach ultimately a little on his own finances.

The class of individuals for whom I now solicit your powerful aid, is perhaps the most numerous, but, I trust, not the least meritorious, in the profession; if I may be allowed the expression, the medical assistants are the fundamental seeds of the future practitioners; for it is calculated that ten out of every twelve, who now settle, pass that ordeal of disgraceful servitude (of course only as relates to pay).

I shall premise a few facts by stating, that a young man, when he has completed his apprenticeship, either commences at once his studies, or goes out as an assistant; it is expected from him that he has been educated a gentleman, and that he will maintain that character in every respect; but should he at that time be left alone on his own resources, which is unfortunately too frequently the case, he has to depend alone on the pitiful sum of 30*l*. a year for what has cost him from 200*l*. to 300*l*. to qualify especially if he has commenced his studies, the bare mention of which fact is a stigma on the profession; what I now state is not unfounded, but of every day's occurrence, must be acknowledged by every candid man, and may be readily verified by paying a visit to that emporium of its origin and continuance, Apothecaries' Hall, for it seems to be a pride among that company of drug venders to render the system more odious and detestable, as may be perceived by the conduct of two of the highest among them.

My apprentice passed his examination at the Hall, and then applied to them for a situation, and had an introduction to two of the leading men of their craft, who altogether objected to the diploma as a better qualification, and refused taking him, as they supposed his attention might be diverted from the grand obstacle, the pestle and mortar, and who even only offered to give 25*l.* for the first year's salary.

Being, Sir, now comfortably settled in this town, I feel, therefore, called upon to try and relieve those who may follow me, from such nefarious practices; and as the time is fast approaching when these, as well as all other abuses, must cease, I trust you will allow this, the echo of many, to claim a small portion of your notice. I rejoice to add, that a gentleman of established reputation has kindly offered to officiate as chairman, when a general meeting of assistants may be convened, which will be in the ensuing month; the object will be to take into consideration the present abuses, and the best means of relieving them; also to propose the establishment of a central situation to be supported by their own subscriptions,, to enable them to have a general place of resort whenever they may be disengaged from, or in want of, a situation.

Trusting, Sir, this will meet with your approbation, and that you will allow its insertion as early as convenient, and previous to the notices which will be advertised in your Journal,

I remain, Sir,
Your constant reader,
An old Practitioner.

Chancery Lane.

Any communications addressed to A. B., Callow and Wilson's, will be duly noticed; and any gentleman wishing to form one of the committee, will please to affix his name to a paper left there for that purpose.

PAY OF SURGEONS IN THE SERVICE OF THE EAST INDIA COMPANY.

To the Editor of The Lancet.

Sir,—The following intelligence, from a general letter of news from Madras, published in the Oriental Herald of this month, deserves to be generally known, as interesting to a considerable part of the community; and with this view it is offered, with a few remarks, for a place in your columns. "Speaking of medical men, I may mention to you a sad blow they have lately experienced, from the medical contract being taken entirely from them, and placed in the hands of the commissariat. It reduces the allowances of surgeons greatly." (The writer would have been more correct, had he said, it abolishes them entirely). "The surgeon of the General Hospital here (at Madras, and as a contract) used to draw 3000 rupees monthly. He has now about 800 rupees."

If fifteen years' bare pay of lieutenant, as assistant surgeon, before promotion, and seventeen years' pay of captain, as surgeon, after it, from which not one farthing can be saved in India, with the retiring-pay in this country of 192*l.* 12*s.* a year, after from seventeen to thirty years actual service in India, if these advantages and this prospect be sufficient to induce properly qualified medical men to embark in the East India Company's medical service, it is very well. The Directors of the Company certainly have a right to make the best bargain they can with their surgeons; of the value, however, of whose services, it is now pretty evident, that they will never be able to form a just estimate, until they shall have been deprived of them by their own parsimonious and penurious neglect.

The Court of Directors have provided differently for their chaplains, for whose services in India it would appear *they* have a higher value; chaplains, after fifteen years' service in India, being allowed to retire on the pay of lieutenant-colonel, just double the sum the Directors think proper to give a surgeon who has served twice that time, the pay to most surgeons on the retired list being 182*l.* 10*s.*, the difference of 6*d.* a-day being a late addition since 1825, and the only one to the retiring pay of surgeons since 1796, and how long farther back I know not.

It ought to be known, in contradiction to what might be inferred from the Notices of Pensions on Retirement, published in the East India Register, that the higher pension of superintending surgeon is not attainable in less than thirty-two years, nor that of Member of the Board in less than from forty to forty-five years' actual service in India.

I am, Sir,
Your obedient servant,
A retired Surgeon of the East India Company's Army.

4th Feb. 1828.

JOBBING AT THE LONDON HOSPITAL.

To the Editor of THE LANCET.

The public being, for the most part, but ill acquainted with some of the facts connected with the late changes in the London Hospital, the following short *exposè*, drawn by one well conversant in these intrigues, will enable them to understand the cause of the recent increase of medical officers, and to estimate the expediency of this abominable measure.

It has been already shown in THE LANCET, in a document signed by some of the governors, that the origin of this scheme cannot be ascribed to any incease of the medical duties for the last six years ; nor has it proceeded from any wish of those constituting the medical staff prior to the innovation. We must therefore look for it elsewhere.

In the document alluded to above, it is stated, that this self-same experiment was tried many years ago, and, if we may be allowed to assume any thing, pretty much under the same circumstances as at the present period. A general court has recorded their opinion of the measure at that time, " that it was impolitic, injurious to the right of the governors, and the interests of the charity."

What, then, were the circumstances which induced a committee to propose a measure, which, after so short a trial, was pronounced to be impolitic and injurious? The existence of a court candidate. When he was elected, there was no longer a necessity for assistant surgeons. The committee, it may be presumed, withheld their individual and collective influence, in supporting a measure which would no longer answer their purpose; and it was therefore pronounced by an unbiassed general court, impolitic and injurious.

The changes or innovations of later days appear to bear a more decided character. The novel office of assistant to *one of* the surgeons is judged expedient, and *Mr. William Blizard Harkness* is elected assistant to Sir William Blizard, which gave to the former gentleman a decided advantage, in case of a vacancy for surgeon.

A very short time elapses, when it is found that a further increase of the medical establishment of the Hospital is *highly expedient* ; and then follows the recommendation of the House Committee to the general Court of Governors, as to the nature and extent of the increase ; viz. that three assistant surgeons, and three assistant physicians, should be added to the medical staff.

The first interested end to be gained, (for we can view the whole in no other light, since the measure has been shown to be altogether unnecessary and injurious,) is the election of Mr. W. B. Harkness, as one of the assistant surgeons of the Hospital, in place of special assistant surgeon to the senior surgeon, which would have insured his election as surgeon, in the event of a vacancy, had it not been frustrated by his lamented death.

The next is, to bring forward *immediately* a candidate for the office of physician, whose interest stands high with the Committee, and for whom we believe, and for the purpose above mentioned, these redundant offices were created. The gentleman to whom we allude is Dr. Gordon, son-in-law of Mr. Charringtoo, the brewer, who is a leading member of the House Committee, has served the office of Chairman and Treasurer, and possesses much influence in the institution. The measure has, in consequence, been jocosely, and not inappropriately, called " Charrington's entire."

The next circumstance to be considered, is, the mode by which the assent of a general Court of the Governors to this inexpedient measure, proposed and recommended by the Committee, is obtained.

Six new offices are proposed, to fill which there must be as many individuals. All the candidates, believing that the appointment will be attended with advantage to them, exert their individual influence among the governors; which, added to the colossal interest of the Committee, produce an over-overwhelming majority at the general Court of Governors, and give an air of popularity to that measure, which, we are confident in predicting, will, at no distant period, be pronounced by the Governors themselves, in more harsh terms than formerly, to be impolitic and injurious to the best interests of the Hospital.

The above remarks are not made with a view to show, that those gentlemen who have been elected are incompetent to fill their respective offices ; but solely for the purpose of exposing that principle of monopoly and self-interest, which pervades committees who have the care of our public institutions, and in no instance more than in the one under review ; and to stimulate the Governors to watch with a most scrupulous attention every attempt at innovation.

I am, Sir,
Your obedient Servant,
LONDINENSIS.

MEDICAL INFORMERS.

To the Editor of THE LANCET.

SIR,—If, in all departments of life, informers are justly deemed odious, how much more than ordinarily hateful must they be, when appertaining to a liberal and learned profession? The species of informer in the medical profession, to which I at present allude, is not himself, perhaps, fully aware of the predicament in which he stands. He is not only acting a base and disloyal part toward the physician, whom he betrays, thereby meriting contempt and censure, but committing a violation of confidence and of property towards the patients, which ought to entitle him, if he cannot be legally punished, to loss of character and of practice among the public at large. The case is simply this:—A Corporation, called the London College of Physicians, who, it seems, have been graciously pleased to bestow a monopoly upon themselves, have been in the habit of requiring, by circulars, that apothecaries should communicate to them, for the purposes of prosecution, such prescriptions as they may have in their possession, written by physicians, who have not been admitted to practise in London, under the hand and seal of the College; and this base requisition has sometimes been basely complied with. Now, it is quite clear that apothecaries are not bound to give up these prescriptions to the College, if they do possess them; and that, as they are the property of the patient, and ought to be returned to him, or to her, along with the medicines prescribed, they have no right whatever to retain or possess them, without the patient's permission, knowing the purpose for which they are intended. The act, therefore, of conveying this information, is one of gratuitous baseness, and would subject the informer to such an examination in the witness-box, upon any trial on which he was a witness, where such a question was involved, that he would infallibly lose all credit and practice, as far as regarded the honest and sensible part of the community, and have to rely for indemnification and support on the precarious gratitude of a few monopolists, whose cause, at the expense of so much honour snd honesty, he had endeavoured to serve.

It has been confidently affirmed, that, in the case of Dr. Dick, the College were supplied with that gentleman's prescriptions by the late Sir Walter Farquhar, then an apothecary; but this, from the general character of Sir Walter, I have some difficulty in believing. Be that as it may, the proceedings on the occasion alluded to, were not calculated to bring the validity of the privileges assumed by the College to an issue; for, on the one hand, their confidence was not so strong in the justice of their cause, as to induce them to persist in the prosecution threatened, and, on the other hand, Dr. Dick's aversion to strife (the emoluments of practice not being an essential consideration with him) led him to abstain from urging the contest. In the present case, however, (that of Dr. Harrison,) the circumstances are different. He, as well as they, has every reason to believe, that the powers to which they pretend, are, in law, a mere nullity. For the general interest of the profession and of the public, therefore, it is his duty to urge the matter to a close discussion and a final decision; and there appears to be no good reason to believe that he will not conscientiously perform it. And with respect to the College, well as they know their total want of legal right to the privileges which they claim, they must be sensible that they have no alternative but to go to trial, trusting for a small prolongation of their corporate existence, to the tricks, stratagems, and chicanery, of the law, unless they would consent to sink into annihilation without a struggle.

It has been stated, that, on this occasion, the College have been supplied with the evidence upon which they mean to rely—Dr. Harrison's prescriptions—by a so-called respectable apothecary in high practice in the west-end of the town. For his sake, I hope the allegation will prove to be unfounded; for, if otherwise, he will soon deservedly cease to be of high reputation and of high practice, whatever may be the efforts of a few sinking monopolists in his favour. No patient of honour will consent to the prescriptions of his physician being made use of for the purpose here described; and if his consent be obtained under false pretences, he, as well as his physician, are grossly betrayed. The betrayer may, I should think, under such circumstances, be made to cut a figure in the witness-box not very much to be envied. C.

STUDENTS AND LECTURERS.

Sir,—I am one of those individuals whom the late regulations of the College of Surgeons will affect, and consequently am obliged to enter to the extra lectures therein specified. I think it but just and fair that the lecturers, who will reap considerable pecuniary advantages by them, should allow their pupils to attend another course, on the same terms, as if they had previously entered for the whole number of courses required by these new regulations; that is, by paying the remainder of the sum charged for the two courses. Such has been the conduct of the lecturer on chemistry in Webb-street; but I am sorry to say that the lecturers on that subject, at Guy's, have not followed his example. Perhaps this notice in your widely-circulated periodical may convince those gentlemen of the justice of the plan. E. T.

Borough, Feb. 12, 1828.

ABUSES AT ST. BARTHOLOMEW'S.

To the Editor of THE LANCET.

SIR,—At this hospital tardy movements seem to be the order of the day; and changes, advantageous to the pupils, almost invariably meet with opposition from its medical officers. I am induced now to trouble you, lest you should be ignorant that notwithstanding your laudable endeavours to effect an alteration in the management of the *post mortem* examinations here, which for a short time appeared to rouse from their lethargy the *dormice* of this establishment, those animals have nevertheless soon sunk again into their accustomed state of stupor. We now never hear of such an event as a morbid inspection; if it does take place, its performance is veiled in impenetrable secrecy. The dressers are probably the chief cause of this unfair and dishonest practice; but I suspect, Sir, that another obstacle to the examinations being publicly performed arises from a certain medical officer of this institution deriving pecuniary emoluments by their being effected secretly. If this be really the case, it reflects disgrace on the individual, who thus debars the pupils from their rights for the sake of his own private interests; and he can expect to meet with nothing less than the contempt of all those students who do not form a part of his *grinding band*.

I am sorry to add, that the business of the dissecting rooms demands also your attention: the demonstrators have, of late, greatly relaxed in their exertions, and it has several times happened that neither of those gentlemen has been present more than an hour during the whole day; and consequently those who are beginning the study of anatomy, and require assistance, knew not where to apply for it. Moreover, there is no perfect skeleton to which they can refer; it is true, there was one, but the greater part of it has gradually disappeared and never been replaced. At the Medical School in Aldersgate-street, there are no less than four, always open to the inspection of the pupils. Let the boasted school of St. Bartholomew beware, it has a rival at its gates!

Hoping you will, with your usual justice, notice these abuses in your next number,

I remain,
Your obedient humble servant,
DISCIPULUS.

St. Bartholomew's Hospital, Feb. 9, 1823.

ROYAL COLLEGE OF SURGEONS.

Mutato nomine, de te fabula narratur.

SIR,—Among the lucubrations of "Isaac Bickerstaff, Esq.," is the following, which is so fully descriptive of the evils of self-election, as exercised by the officers of *any* "Royal Society," that it may serve at the present crisis, and on the eve of a great general meeting, to direct the minds of the insulted "Members of the Royal College of Surgeons" to a consideration of the real state of things, and the true source of what, in the popular phrase, would be called, their professional disabilities.

After accusing certain "modern virtuosos," of tending rather to contract the minds of students, than to afford them opportunities of enlargement, he continues—

"This, in England, is, in a great measure, owing to the worthy elections that are so frequently made in our 'Royal Society.' They seem to be in a confederacy against men of polite genius, noble thought, and diffusive learning; and choose into their assemblies such as have no pretence to wisdom, but want of wit; or to natural knowledge, but ignorance of every thing else. I have made observations in this matter so long, that when I meet with a young fellow that is an humble admirer of the sciences, but more dull than the rest of the company, I conclude him to be a fellow of the 'Royal Society.' It matters nothing though the Royal Society should chance to be a Royal College, and whether the Fellows or Members be young or old, if they are in the receipt of a large annual income, empowered to elect their own members, and irresponsible to the great bulk of their particular community; such is human nature, that even its most exalted individuals would be in danger of neglecting the general good; and of filling up vacancies, not by the substitution of *able* members, but of members sufficiently intelligent, at least to enter into their own views, and ductile enough to follow where they are led.

"If such 'ignoble swerving' might be feared, even of the best of us, what wonder is it if it be actually found to exist among certain persons, who, as public functionaries, at least, are not of the *very* best, but (if the truth were rashly to be told, which of course must never be) are seen and known by the whole profession to form a womanish conclave, as imbecile and corrupt, as if it were not composed of public-spirited, high-talented, money-despising gentlemen."

Your excellent Journal has already thrown open the doors of the museum and library, and this is the first step of that thorough reform, which is immediately pending. When it shall be well established, your reflections, Mr. Editor, will be of an enviablo description.

Your obedient servant,

A LOOKER FORWARD

ROYAL VETERINARY COLLEGE.

A meeting of the pupils of the Royal Veterinary College was held in the theatre of that institution, on Wednesday the 6th of February, for the express purpose of taking into consideration some means to counteract the various false reports which had been promulgated respecting their Professor and themselves.

Mr. George Griffiths in the chair.

The following resolution was moved by Mr. Hughes, seconded by Mr. Scott, and carried unanimously:

" That with pain and surprise they have seen the malignant and unjustifiable attacks made of late on their Professor, in a publication called The Lancet, particularly the following, in No. 230, the 26th January, where it is asserted that ' without exception the students, we believe, feel dissatisfied, disappointed, and indignant.'

" As a body* they protest against the truth of this assertion, as well as that which immediately follows—" The attendance at the stables by the Professor is of the most irregular description, and scarcely an observation of the least practical importance on any case submitted to his notice is ever heard to drop from his lips." They contend, that not only is his attendance, when health permits, (and his present protracted illness is deplored by all,) most regular, but the practical observations which he then and there makes are of so much importance, that they constitute a valuable branch of their instruction.

" The pupils of the Royal Veterinary College have therefore thought it a duty incumbent on themselves to enter this their unequivocal contradiction to such unfounded and unjustifiable calumnies."

It was then moved by Mr. Vincent, seconded by Mr. Meekes, and carried unanimously,—

" That a copy of the above resolution be forwarded to Professor Coleman, and one to The Lancet, for insertion."

George Griffiths, Chairman.
George Johnston, Sec. Pro. Tem.

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* We advise these young Gentlemen to be a little more discreet in their statements. The " body" consisted of less than twenty-five.—Ed. L.

BRACY CLARK AND EDWARD COLEMAN.

Our ancestors provided for a development of facts by the admirable form that they instituted for an oath; wherein, not merely satisfied with the truth, and nothing but the truth, they required the whole truth. Now I would recommend to Bracy Clark and Edward Coleman to seek for a development of the whole truth, and then each will be convinced that they are both wrong with regard to the geometrical figure of the horse's hoof; one asserting it to be a part of a cylinder, the other a part of a cone; and the obstinacy with which each supports his opinion shows that neither has given the whole truth. In point of fact, both are right and both are wrong, as regards the form of some feet, but if there is any one part of an animal in which its Creator has produced more variety of detail within one general outline, it is, next to the human face, in the horse's foot. Bracy Clark, looking at the foot sideways, makes his assertion; and Edward Coleman, looking at it in front, is equally bold in his assertion; whereas, were each to condescend to change places, and increase the number of feet on which their observation has been made, they would then see that any one view can do no more nor less than lead to an erroneous general conclusion. I remember very well Bracy Clark's cylinder of wood cut obliquely, which he produced at the Society of Arts to show the geometrical figure of the horse's hoof; and then it was that to me the error became palpable: these segments, or truncated portions, showed a figure approaching to that of the foal's foot, and of some horses' feet, but they did not give the horse's foot as it most generally exists. Indeed Bracy Clark is himself, though it would seem unwittingly, aware of this, for he describes the foot as having a greater bulge, as having the wall or crust more oblique on the outer than on the inner side; it most commonly is so, and from this disparity between opposite sides, every farrier will correctly tell, in most instances, whether any particular hoof has belonged to a near or an off limb. Now, how a foot thus described is to be brought within the shape of any part of a cylinder, I cannot comprehend. I believe the opposite dicta of these two popular writers have never yet been viewed in the light in which I have now endeavoured to place them; and, having done so, I shall leave to those more fond of controversy on abstract points, this, (so far as concerns merely external shape and configuration,) unimportant subject.

Frederick C. Cherry,

Clapham, Feb. 4, 1828.

FOREIGN DEPARTMENT.

*Sitting of the 13th of December.**

FRACTURE OF THE CRANIUM, WITH LESION OF THE BRAIN.

A Report was made by M. Hervey de Chegoin on a case of fracture of the cranium, with lesion of the brain, sent to the academy by M. Cavenne, surgeon at Lyon.

A child, about seven years of age, the subject of the present report, received a kick from a horse, which caused a considerable fracture of the frontal bone, with a depression of about three inches in extent; much blood escaped, mixed with cerebral substance. On the first day it was attempted, but in vain, to raise the portion of bone; it was effected, however, on the following day. The bone had torn the dura mater and penetrated into the anterior lobe of the brain, which was reduced in this spot to pap, and compressed; about three inches in extent of cerebral substance was removed.

On the following days they withdrew on each dressing, notwithstanding every precaution, a small portion of cerebral substance. M. Cavenne thinks, that the quantity which was extracted, weighed one ounce and a half. All the senses remained perfect.

On the fourteenth day, pain was felt for the first time in the forehead; and, on examining the wound, a fracture of the squamous portion of the temporal bone was discovered. No dangerous symptom was perceived, and the cure was accomplished in two months. The child enjoyed very good health, and the use of all the senses. The cerebral substance presented for a long time, even after the cicatrisation of the external wound, a swelling which M. Cavenne successfully treated by pressure. This and many analogous cases which exist, prove that a portion of the brain may be taken away with impunity.

TRISMUS, TRAUMATIC TETANUS, WOUND OF THE HEAD.

M. Reveillé Parise read a report on cases, communicated to the Society by M. Colombot, physician at St. Chaumont,—1st, a case of trismus and general tetanus, the subject of which was a young man sixteen years of age, which had been occasioned by a bruised wound in the right leg, and which was cured by the exhibition of opium in large doses, and in every form; the patient took about sixty grains every day, one ounce and a half in three weeks. The reporter, from this fact, thought that the opinion of those who consider that tetanus consists in a myelitis was probable, and that its seat was in the meninges of the spinal marrow. 2d, A case of fracture of the cranium in a man who had been buried under a roof, and whose thorax was so compressed, that the spinous processes of the dorsal vertebræ perforated the skin by so many foramina, and whose left parietal bone was fractured and depressed. The lesion of the parietal bone brought on an effusion into the substance of the brain, and, at the end of sixteen days, this gave rise to an abscess in this organ, about an inch in depth. During the course of the disease, more than an ounce of the posterior lobes of the brain was taken away; the patient, however, was perfectly cured, without any derangement of his intellectual faculties.

AMPUTATION OF THE NECK OF THE UTERUS; FRACTURE OF THE NECK OF THE FEMUR; FRACTURE OF THE OS CALCIS.

M. Lisfranc detailed several cases of his practice at the Hospice de Perfectionnement; 1st. He performed on four women, the amputation of the neck of the carcinomatous uterus. He assured the Society, that the removal of the neck of the uterus by the knife, is not painful; no dangerous symptom supervened, and every thing announces a speedy cure. 2d. He presented the femur of a woman seventy years of age, the neck of which was fractured at its base, and the fracture united; but the neck was joined at right angles with the body of the bone; the trochanter major had also been fractured at its base, and the fracture consolidated; but this consolidation was also made on the body of the bone. 3d. Lastly, he presented to the meeting a woman fifty years of age, who had fractured the superior and posterior part of the os calcis, from a fall on her feet. When M. Lisfranc saw the patient for the first time, a phlegmonous erysipelas had seized the foot and leg; bandages could not be applied till twenty-nine days after the accident. It was applied for three months, before the bones could be brought in contact. At the end of a month, the wound of the soft parts was cicatrised, and the fragments of the bone appeared to be united by a fibrous substance, analogous to that which is found in fractures of the patella, and which leaves a certain degree of motion between them. But this motion had disappeared for three weeks; probably, said M. Lisfranc, because the substance which existed between the fragments was ossified.

AMPUTATION OF THE LOWER JAW.

M. Lisfranc presented to the meeting the patient on whom he had performed the amputation of the left half of the body of the inferior maxillary bone. The cicatrix was scarcely visible when the man wore a cravat; the face of the opposite side was rather deformed; the right side of the body of the bone slightly inclined to the left; the left ramus passed a little to the inner side: the cure was effected without the appearance of any dangerous symptom.

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* Archives Generales, January, 1828.

ROYAL INFIRMARY, EDINBURGH.

So accustomed are the public to see offices of the greatest responsibility filled by incompetent persons, that the late appointment of Mr. Liston as one of the surgeons to the Royal Infirmary, has really struck the profession in Edinburgh with astonishment. A part of the press of that city consequently proclaims his election with an air of triumph, as a concession on the part of the Governors to popular opinion; and is loud in praise of his qualifications for the situation. In both these opinions we entirely concur; and add our quota of wonder to the common stock, that the managers have at length done their duty towards the institution, and justice to the merits of the individual whom they have elected. Mr. Liston has proved himself, from the very commencement of his professional career, as daring in operative enterprise, as he has been successful in the execution of his undertakings; but, though a bold and expert application of instruments forms his most striking characteristic, yet we must presume that he also possesses an extensive knowledge of surgical disease; for a dexterous use of the knife alone, without a judicious selection of cases and skilful treatment, could not have been followed by results so generally prosperous as those which have distinguished most of his operations. To these recommendations the Governors seemed to have been quite indifferent, having, on one or two recent occasions, left the possessor of them to the patronage of his own deserts; while other candidates of comparatively less merit were honoured by their elective sanction. Much of this neglect, we believe, might be attributed to the fact of Mr. Liston being in the habit of successfully treating the incurable cases of the surgical wards of the Infirmary; not always, it is said, obtained in the way of fair trade, and to the consequent hostility of professional rivalry. Under such circumstances of opposition, his appointment is no less honourable to him, being the extorted homage of respect for his talents, than it is advantageous to his interests, as it makes him independent of those obligations to customs and colleagues by which men raised to office by the force of interest alone, are usually bound; and peculiarly fits him for the discharge of those duties which the state of the establishment to which he has been called imperiously demands, without any respect to persons or existing arrangements. Of the condition of the surgical wards of the Royal Infirmary, no one can be better informed than Mr. Liston himself, who has so often practised at second-hand on its inmates; drawn in his lectures such vivid pictures of the bad surgery of public hospitals, and often imperfect instruction of pupils in their wards. Omitting, however, the superfluous task of reminding him of those representations which he has repeated too often, and impressed too forcibly on others to forget himself, we would rather suggest to him the propriety and consistency of remedying those evils which he was wont to regret, and of carrying those principles which he so often professed, into execution, now that power seconds his will. Should the absurd constitution of the clinical chair, and the example of those who, by their silence, have perpetuated its monopoly, induce him to neglect the usage, now often observed in the English and Irish hospitals, of explaining such cases as come under his care, we might assure him that his delicacy, if felt, is sadly misplaced; and that the most he may expect from the exercise of such fine feelings, should be the sardonic gratitude of a sneer at his complacent simplicity. A choice between the self approbation of doing his duty with the sanction of the public support, and the hollow thanks of men grateful for an acquiescence in their views, only in proportion as their objects are advanced, and their character preserved from a contrast, ought, therefore, to be a matter with him of easy determination. For a free and independent line of conduct, the nature of his election eminently qualifies him; the sentiments entertained towards him render conciliation itself thankless; the situation to which he has been appointed, requires exertion at his hands; his own fame and interest, in a word, are involved in the opportunity which he possesses; and the manner in which he avails himself of it, shall certainly be the measure of our own conduct in noticing the future proceedings in the wards of the Royal Infirmary. Scotus.

Edinburgh, Feb. 16, 1828.

P. S.—Holding myself responsible in the same degree for the truth of all statements appearing under my signature, as if they had been signed with my proper name; I think it necessary to notice so much of a letter published in the last Number of The Lancet as seems to involve the correctness of certain observations made by me in announcing Dr. Cullen's translation from the surgical to the medical wards of the Royal Infirmary. That I must have been uninfluenced by any partiality towards that gentleman, in the representation which I then gave of him, will be sufficiently apparent from a perusal of what I said after his appointment to a surgeoncy in the Hospital, in March last. I then spoke of him relatively to a candidate for the situation which he at that time obtained, precisely in the same terms as I would have done on a recent occasion, the circumstances of the contest being the same; but, perceiving that on his election he formed an honourable exception to his colleagues in the discharge of his duties, I considered it but just to give him full credit for his exertions, even at the risk of appearing to contradict what I had previously advanced. The propriety and justice of these motives can scarcely admit of dispute; Dr. Cullen's conduct in the surgical wards being witnessed by many pupils, to whom I appeal, if they have not seen him as courteous and communicative at the bed side of the patient, as he has been pains-taking in his explanations of post-mortem examinations and operations in the theatre. With the nature of the dispute between him and his clinical clerk, I am quite unacquainted, further than I have learned for the first time from the letter of your correspondent; nor am I at all concerned in the transaction, further than to substantiate an assertion of mine, to the effect that Dr. Cullen's known willingness to communicate instruction had collected around him a number of pupils, in the ordinary physician's wards. Your correspondent seems to doubt the correctness of this inference; and states, that Dr. Cullen's quarrel with his clerk was the real cause of the pupils crowding around him. The difference of opinion between us on this point is very easily adjusted by a reference to "dates," which, as Van Butchell has it, "expose fiction." My notice of the disputed fact was written on the second day of Dr. Cullen's taking charge of the medical wards; and, I believe, before any dispute had occurred between him and his clerk; so that it is pretty evident no crowd could have been then drawn about him by a cause which did not at the time really exist. Whether his followers were subsequently increased in number in the expectation of being amused by his classical objurgations with clerks and nurses, I cannot pretend to say; for, though a very ubiquitous sort of personage, I cannot be in all parts of the Royal Infirmary at the same time. But with this or the other parts of your correspondent's letter, I have nothing to do, and shall add nothing more than merely to observe, that if he considered Dr. Cullen's conduct improper towards persons acting under him, I think G. W. N. was perfectly right in the course which he adopted.

ST. BARTHOLOMEW'S HOSPITAL.

LITHOTOMY.—INFLAMMATORY ATTACK, AND SLIGHT HÆMORRHAGE AFTER THE OPERATION.

James Batcock, three years and a half old, was admitted into the hospital, under the care of Mr. Lawrence, having had symptoms of stone in the bladder for the last eighteen or twenty months. Although looking healthy, he has been delicate from his birth; he could not go alone till the age of two years and a quarter, and was supposed to have some disease of the spine; he has occasionally suffered prolapsus ani, particularly during dentition, and has waked in the night and cried for two hours or more without any apparent cause. He was observed to make water with difficulty a year and a half ago, and this has continued in a greater or less degree to the present period. For the last four months he has been in the habit of rubbing the penis, pinching and pulling the fore-skin, sometimes suffering great pain, and enjoying, at others, long intervals of ease. The urine has always been clear and natural when voided; but has deposited a slimy sediment after standing for a few hours. The mother, who is an intelligent woman, has carefully attended to the diet, and state of the bowels. A stone having been immediately felt on sounding, the child was admitted: milk diet and opening medicine were ordered. The operation was performed with Blizard's knife, and two small stones, which were grasped together, were extracted with the greatest facility. They were each about the size of a nut, hard, smooth, and apparently composed of uric acid. Four or five ounces of blood were lost in the operation; but the hæmorrhage soon ceased. He slept well through the whole night, and was quite comfortable on the following day, when the water passed partly by the penis, and partly through the wound. The bowels were open without medicine. In the afternoon, however, he was seized with pain in the region of the pubes, which was tender on pressure, and rather tense; his face was of a livid red, and then turned pale. Mr. Caswell, the House Surgeon, very promptly and judiciously directed the proper treatment; viz. ten leeches over the pubes, immersion in the warm bath, and subsequent wrapping in a warm blanket; afterwards a dose of calomel and rhubarb, to be followed by castor oil in the morning. He was restless and thirsty during the night, and the warm bath was repeated in the morning. After this he was easy. On the third day he was quite free from pain, and altogether much better. There was an ecchymosed appearance of the scrotum, near the wound, which frightened the mother; the wound, however, was quite healthy, and the urine flowed freely both ways. As he was still thirsty, the simple saline mixture was ordered for him to drink when he liked. On the fifth day a few clots of blood passed through the wound, and some blood flowed through the urethra; but this soon ceased spontaneously.

14th day. He has continued improving; a little water comes occasionally through the wound, which is nearly closed. The mother was advised to take him home to the country, where he could have every attention and comfort, with the advantage of good air. He was accordingly discharged.

The staff used in this instance differed from those usually employed, and was found to pass the urethra and enter the bladder with the greatest ease, and to answer all the purposes of the operation very well. The curve described a portion of a smaller circle than in the common staves, and the end of the instrument was not prolonged beyond the semicircle of the curve. Instruments of the ordinary shape are not only introduced with difficulty, from their curve being quite different from that described by the urethra of the young subject, but they have the further inconvenience of projecting towards the rectum and bottom of the bladder, so as to create additional difficulty and danger in the operation. Mr. Lawrence has seen great embarrassment produced by this circumstance only; it is entirely avoided by employing the kind of staff just described, which lies close under the pubis, and towards the fundus of the bladder, and thus leaves the space for the knife, or gorget, and the forceps, which is always narrow in the child, quite free. The same configuration of the staff, *mutatis mutandis*, is best at all ages. The urine flowed partly through the penis on the first day after the operation; and Mr. Lawrence has generally observed this to happen within the first four days in children. In two instances he has seen the water discharged the natural way from the time of the operation; none having passed through the wound. In a gentleman of 60, on whom he operated lately, the urine came by the wound entirely on the seventh day; the wound had healed and the patient left his bed on the 14th day. The explanation of these circumstances, in Mr. Lawrence's opinion, is, that Blizard's knife makes a small opening only in the prostate; the finger and the forceps extend this, so that the stone is drawn out through an aperture principally made by dilatation. The parts recovering themselves after this extension restore the continuity of the canal.

ST. THOMAS'S HOSPITAL.

WOUND OF THE INTEGUMENTS OF THE KNEE, FOLLOWED BY SUPPURATION OF THE JOINT, AND GANGRENE OF THE LEG—AMPUTATION BY MR. TRAVERS.

Henry Caulfield, ætat. 52, of unhealthy appearance, lax fibre, and very intemperate habits, was admitted into George's Ward, on the 23d of December, under the care of Mr. Travers, on account of injury to the knee.

Upon examination, it was found that a portion of integument, of about the size of a crown-piece, was removed from over the right patella; the bone, at its upper part, being denuded to the extent of about half an inch. The edges of the wound were irregular, and slightly inflamed; the skin on the inner side of the knee was much grazed, and dirt was intermingled.

The treatment pursued on admission was as follows:—the wound was well cleansed, a piece of simple dressing applied, and over it a poultice. The limb was kept in the straight position.

December 26. There is a slight discharge of pus from the wound, which is granulating and healthy in appearance; the man complains of no pain in the joint, and is free from constitutional disturbance. At the lower part of the patella there is a dark coloured slough of the size of a shilling, partially adherent.

Ordered, three grains of the sulphate of quinine twice a day, with the application of dilute nitric acid lotion to the slough. A pint of porter daily.

January 30. From the date of the last report, to the present time, the man has been going on well; the wound healthy and healing. To-day he complains of severe pain in the joint, greatly aggravated on motion and upon making pressure on the side of the wound, a quantity of fœtid pus issues. The slough, at the lower part of the patella, has partially separated, leaving the bone exposed. There is now much febrile excitement; the pulse small and quick; bowels costive.

February 2. There is an opening on the outer side, evidently leading to the joint, from which a large quantity of offensive, dark-coloured pus is discharged. The joint is tumefied, generally. The pulse continues quick and small, with some degree of sharpness.

He was directed, on the 31st, six ounces of port wine, daily, and a grain of opium at bed-time.

4. A probe can now readily be passed into the joint on the outer side; the discharge is very copious. The dresser, Mr.

Ward, endeavoured gently to move the patella with a pair of forceps, as it appeared that the attachment of the upper part was destroyed; it was found, however, that the separation was but partial.

5. The leg and foot are œdematous; the whole of the integuments inflamed, and acutely painful. The discharge from the joint is profuse, and there is high constitutional disturbance; the pulse small, weak, and almost innumerably rapid. The wine to be continued, and spirit lotion applied to the leg.

As it was clearly evident that the profuse discharge from the joint was fast exhausting the vital powers, previously enfeebled by intemperance, amputation was proposed by Mr. Travers, to which, after a short delay, the man consented.

February 6. The limb was removed today, at the middle of the thigh, by the common circular incision; it was considered necessary to perform the operation thus high up, in consequence of the cutaneous inflammation having extended to the thigh at its lower part. Mr. Travers, during the performance of the operation, especially pointed out the want of tone or contractility in the muscles; when divided by the knife, they did not retract in the slightest degree. Very little blood was lost: the femoral artery, and a small muscular branch, required the application of a ligature, and the *femoral vein* was also tied in consequence of its bleeding freely.

The amputated limb was carefully examined, and was found to present the following appearances:—the leg and foot enormously enlarged: a large gangrenous patch occupying the calf, and surrounded to some extent by a livid redness. There were several vesicles containing turbid serum, at the upper part of the leg. When a free incision was made into the limb, a large quantity of serum, mingled with pus, made its escape; this fluid was diffused in the cellular membrane connecting the muscles, as well as throughout the supra-jacent tissue. The muscles were pale, and flabby.

When the joint was laid open, the marks of acute inflammation having prevailed throughout the synovial membrane generally, were very palpable. The cartilages also had become partially diseased; they were softer than natural, and, upon the inner condyle of the femur, there was slight ulceration. The ligaments did not appear to be much affected. The patella was softened throughout, and partially detached at its upper part; the joint contained a large quantity of offensive pus.

A report, made on the day after the operation, states, that the patient passed a good night; he was allowed a pint of wine daily. On the 8th, it was found that he had been very restless during the night, talking almost incessantly to himself. There was a profuse fœtid discharge from the stump, attended with much heat and pain; the dressings were removed, when the lower third of the surface was found to be of a dirty ash colour, and insensible. Equal parts of olive oil and spirit of turpentine were applied to the gangrenous part. Seven grains of carbonate of ammonia, with half a drachm of aromatic confection, given every four hours, in camphor julep.

Throughout the 9th and 10th, the man remained nearly in the same condition; the vital powers being at an exceedingly low ebb. He sunk on the morning of the 11th.

MORE OF ST. BARTHOLOMEW'S SURGERY—EXEMPLIFICATION OF "THE MARCH OF INTELLECT."

During the last admission-week of Mr. Travers, a poor Irishman, Michael Farley, presented himself at the surgery, complaining of injury to the shoulder-joint, which incapacitated him from pursuing his ordinary employment. He stated, that three weeks previously he slipped from a ladder to the ground, falling upon his shoulder; that, on the following day, he applied as an out-patient at St. Bartholomew's Hospital, and was seen by one of the persons whose duty it is to attend to the out-patients, and he was told that he had merely "sprained the joint." A liniment was in consequence given to him, with which he was directed to rub the part occasionally. After a few days, finding that he had obtained no relief, he applied a second time, and a lotion was now prescribed, after the joint had been again *attentively* examined. The man continued his occasional attendance at the surgery of St. Bartholomew's, for upwards of three weeks, at the expiration of which time he was precisely *in statu quo.* He now, as before stated, applied at St. Thomas's Hospital; and, upon directing him to strip, for the purpose of examining the part, it was distinctly seen—*that the humerus was dislocated, downwards.* The nature of the accident was indeed so apparent, that it was discovered at a glance. The patient was taken into the operating theatre, and, without using any preparatory means, the dresser, Mr. Ward, effected the reduction simply by making extension for some time from the elbow, then passing the heel into the axilla, and suddenly bringing the arm to the side.

The man remains in the Hospital at present, in Henry's Ward: he has almost recovered the perfect use of the limb, and he swears by the "holy poker," and "St. Patrick," that he will never again go to St. Bartholomew's.

COURT OF KING'S BENCH.

18*th February*, 1828.

MACLEOD *v.* WAKLEY.

THIS Cause was tried before the Lord Chief Justice, and a Jury composed of the following gentlemen—Messrs. Charles Gibbs, John Smith Graham, Samuel Bensley, Thomas Burton, Benjamin Blackmore, John Davis, Adam Duff, Richard Lawrence, James Atkinson, William Castella Drisdale, *special*, and Charles Arnott and William Austin, common jurors. Sir James Scarlett, Mr. F. Pollock and Mr. Patteson were for the plaintiff, and Mr. Brougham and Mr. F. Kelly for the defendant.

Mr. PATTESON opened the pleadings, and

Sir JAMES SCARLETT stated the case to the Jury :—May it please your Lordship, Gentlemen of the Jury,—The plaintiff in this case, Dr. Macleod, is a physician who has, I think, been for at least ten or twelve years practising in this metropolis. He is a gentleman exceedingly well known, both in the circle in which he moves as a medical man, and by the public who take an interest in the publication of medical works, by having become the editor of a work called the *London Medical and Physical Journal*. He was the publisher of that work with a *Mr. Bacot* up to a certain period, and from that time he became the sole publisher. The object of the work is to take notice of such publications, and of any medical facts, as may be useful to the public ; also to make some comments on any medical information from medical sources, for the purpose of informing the public, desirous of knowing what passes in that department, and, in short, if I may say so, to carry on the living history of medicine. Gentlemen, I should inform you, in order to explain the matter of this libel, which Dr. Macleod calls upon you this day to consider, that he published in the month of December, 1825, in a publication I now hold in my hand, a case, or the supposed case, of a disorder, which is called *aneurism*, in his journal, published, I see, in the month of December, 1825. I may also inform you, that we shall have no occasion here to embarrass ourselves with the discussion of medical terms, or of any medical talent ; therefore you will not expect from me, nor shall I alarm you with any such discussion or explanation, except so far as to state the facts relating to the question, in order that you may be in possession of the case. A gentleman of the name of *Wardrop*, who, I have no doubt, is a gentleman of deservedly high respectability, published a case of aneurism that had been cured by him. The place where such a disease occurs, is in the arteries ; and where it is of a carotid artery, it becomes more difficult of cure. The method of cure that has been the most received by ingenious surgeons, has been to apply some ligature, (if they possibly could obtain access to the artery below the tumour,) below where the tumour and enlargement takes place, and as nearly as possible to the heart: that has been the practice where the tumour has occurred in that place. Mr. Wardrop had effected a cure, where he found the application of the ligature in that particular part impossible, by tying the artery beyond the position of the aneurism ; that is, placing the ligature on the other side of the aneurism, with reference to the heart. This certainly had been attempted in one or two instances before, but was supposed to have failed of success ; but Mr. Wardrop having published this case of success, it was noticed by Dr. Macleod ; and from the very gentlemanly approbation he expressed of it, I should have thought Mr. Wardrop would have felt gratified, having no reason to doubt, the accuracy of the report, which we don't affect to doubt this day, inasmuch as no circumstances have occurred since to change our opinion. It is called a *case of carotid aneurism, successfully treated by tying the artery above the aneurismal tumour*. "This is one of the boldest operations to be found in the records of modern surgery, and is unquestionably very interesting and important;" it is remarked by the Doctor, and so on. Then he gives an extract of the case ; the whole case is given sufficiently full to make any body understand it, occupying a space nearly of three pages and a half of his Journal—that was in Dec. 1825. In the latter end of the year, 1826, another case had occurred, which Mr. Wardrop had published in a work called THE LANCET. THE LANCET, Gentlemen, is a work published by the defendant—I believe he is the proprietor of it likewise ; it is a work of very great circulation, it is published at a very cheap rate, being only sixpence a number. It combines with medical facts, a species of humour and satire which you all know render literary publications the more acceptable. (Here Sir James was interrupted by a person addressing the Court, upon a subject unconnected with this case.) Gentlemen, I was stating to you a proposition which, I hope, you will agree with me in : that a publication, whether it be of a scientific nature, or purely literary, that is seasoned with a portion of satire and personal allusion, generally speaking, from some cause or other—what, I don't pretend to know—some cause, I suppose, founded in human nature, has more circulation than any other, and, consequently, this is a work of great circulation. The other cases of aneurism having occurred in the following year, and having been published in THE LANCET, obtained, consequently, great circulation, but there was no occasion for Dr. Macleod to notice it, unless he chose; however, in another Number of his, published in the month of April, 1827, it was noticed by a writer who made him an original communication, a gentleman of the name of Travers, who had treated various cases of disorder of the arteries, of which this is one, and who had compiled them in his communication. He alluded to this case of Mr. Wardrop's, and it was noticed by Dr. Macleod; but it so happened, that before the Number went to press, the last patient on whom the experiment had been made by Mr. Wardrop, died; and upon her death, an examination was made into the particular part where the aneurism had taken place, in order to know the success of the operation; for, though the recovery of the patient, as long as she lives, is the best proof of success, yet, as we don't know the secrets of nature, the most learned anatomist has still something to learn. Therefore, when the lady—I think it was a female, had died, an opportunity being given in the hospital of examining the particular part, it was thought very proper to know, whether the ligature Mr. Wardrop had applied, had really been upon the artery, or upon some other membrane. Now I should inform you, that it is a known fact, distinctly known among medical men, that when the artery is completely tied, it prevents any passage for the blood; the effect of that, is, to obliterate altogether the communication, so that the two extremities become sacs—closed at the ends, and there is no passage for the blood; if any communication remains between them, and it is pervious—if an instrument can pass through them, that is a proof the operation has not been complete. Upon examination of this patient, who was supposed to have recovered from the disease, but who still remained a patient, it was completely ascertained that, in point of fact, the artery, where the supposed ligature had been applied, was in a perfect state and pervious, and that the blood had flowed through it, from the heart to the head, as before; therefore, the cure must have taken place from some other cause—some cause or other which I am unable to explain. Now this was a fact so important, and, being an original fact, Dr. Macleod thought it right to publish it, and he did so, in his Number of June, 1827. You see the April Number had appeared with the communication from Mr. Travers, and he having spoken, very properly, in commendation of the new practice, relying on the accuracy of the report in the former publication, this notice was taken by Dr. Macleod:—

"*Dissection of one of the Cases of Aneurism, in which the Carotid Artery was supposed to have been tied beyond the Tumour.*

"Our readers are probably aware, that it was proposed by Dessault to tie the artery, in certain cases of aneurism, beyond the tumour, and that this operation was actually performed by Deschamps and Sir A. Cooper, but, proving unsuccessful with them, never became generally adopted. Allusion is made, in the present Number of the Journal, to Mr. Wardrop's attempt to revive this method of operating; and we, therefore, think it right to make our readers acquainted with the state of parts, as discovered on the post-mortem examination of one of the recent cases.

"The patient alluded to died last week, and the body was examined on the 23d, when it was found that *the carotid artery was pervious and undisturbed, presenting one continuous tube throughout, there being no unusual appearance, and no aneurism.* The heart was affected with hypertrophy.

"Mr. Travers, with reference to the alledged success of the method, remarks, (page 331,) that it will be of much importance, "*if borne out by similar results*;" and we have given the above details, because it is obviously of great importance, that surgeons should be able to form a true estimate of the value of any proposed method of treatment as soon as possible, that it may either be rejected or adopted, according to circumstances.

"We are quite aware that mistakes will sometimes happen, even in the hands of skilful surgeons; and it is this consideration which has induced us to withhold *numerous other instances of unfortunate operations*, which have been transmitted to us for the purpose of publication, because they have not, like the present case, been connected with any important practical question."

Now, there is no doubt, that the circumstance was of very great practical importance to all surgeons; and if Dr. Macleod, as the publisher of this Medical Journal, had neglected to notice that fact, whatever importance might have been attached to it by the profession, it would have been a great neglect on his part, therefore it was necessary it should have been made known to the profession; and seeing that one case had been reported as successful, and another reported as successful, which turned out not to be so, it was very important that the profession should have been informed of the precise operation which was supposed to have been successful, for there is no doubt that the operation is dangerous, and, unless it appeared to be successful, it would be hazardous to risk a continuance of the experiment. Gentlemen, this is the whole that Dr. Macleod has done, and you will consider whether he has deserved the attack made upon him by the editor of THE LANCET, which has been made. Dr. Macleod publishes his Journal in this form (holding up one of the Numbers to the view of the Jury). You observe it has a *yellow* leaf for the cover, by which the author of THE LANCET thinks proper, as you will afterwards find, to distinguish Dr. Macleod; and you may recollect, that the editor of THE LANCET considers himself, in some degree, the rival of the other; a rival should, at least, be civil—he should not be rude. What is the character of the editor of THE LANCET I don't pretend to know, but, I believe, the title he assumes, is understood to mean, that he is a great *scarifier* (a laugh); therefore, the title adopted by him is meant, I presume, to convey the impression, that he uses THE LANCET rather more freely than others, in the performance of his surgical operations. He says,—

"We must again return to the April Number, for the purpose of noticing two papers which refer to the recent operations for the cure of carotid aneurism, by tying the vessel *beyond* the tumour."

Then he takes notice of the first case, published by Mr. Wardrop. He says—

"The first case *successfully treated* after this method, was published by Mr. Wardrop, in part 1st, vol. xiii., of the Medico-Chirurgical Transactions, on the 5th July, 1825, and was copied into THE LANCET of December the 31st, 1825; the second case treated by Mr. Wardrop, appeared originally in THE LANCET, Dec. 23, 1826; the third case, treated by Mr. Lambert, was published in this Journal of March 24th, 1827; during the whole of which period, *not one word* had been said of these most important operations in the Yellow Journal, by that exceedingly sagacious, active and intelligent editor, Roderick Macleod." (*A laugh.*)

You will see, Gentlemen, by-and-by, whether these words are meant to be complimentary or not; by-and-by Mr. Brougham will say, whether they are ironically inserted or not.

"But on the 23d, (March) the subject of Mr. Wardrop's *second* operation having died, from an enormous hypertrophy of the heart, *Roderick* (laughter), in his April Number, presents his readers with his *first* notice of either of these operations, in the following account of what he calls the 'dissection' of the body. This account we will here insert, italics, capitals, and all; in fact, without altering either word or letter."

Now, here he begins to inform his numerous readers, and I have no doubt that numerous they are, what he must have known was a direct and positive falsehood. You see, his object was to show, that Dr. Macleod, as editor of the Medical Journal, conducts himself with partiality; for that, when he gets an unsuccessful case he publishes it, but when he gets a successful one, he does not. Now, this Gentleman, if he reviews a work, is bound to read that work—he is bound to read it. And I think I may say, with respect to some of you, that you have known some persons have professed to review works which they have never read; and, I remember, there was the case of a review of a Mr. Buckingham's works, it was a publication of Travels through Asia, that the reviewer had either not read, or, that having done so, he falsified the statement. Now, one of these two things must be applied to the Editor of THE LANCET; either he has read the publications of the plaintiff, and falsified them, or, not having read them, he goes on to delight his readers by stating a falsehood. Then he goes on stating what I have already read; he gives the *post-mortem* examination; and then he comments on this in his own way:—

"Now, we really think that Roderick will be most heartily despised when we come to explain the matter a little, and when we reflect on what is his duty as a medical journalist."

You know the old saying, we all of us can see our neighbours faults, but our own are behind our backs; the Editor of this Medical Journal is going to attack another, for a fault of which he himself is guilty.

"Mr. Wardrop's first operation was read to the Medico-Chirurgical Society, July 5, 1825; his second operation published in Dec. 1826; and Mr. Lambert's in THE LANCET of March 4, 1827; yet, during the whole of this protracted period, Roderick keeps his readers in perfect ignorance of these most important and invaluable additions to our stock of surgical information; but no sooner does one of these patients die of another disease, than this precious Macleod, or 'gentlemanly Macleod,' as we one day heard a Scotch blockhead call him, brings out the above history of the dissection, from which it is impossible to understand whether he wishes to convey to his readers an impression that it refers to the first, second, or third case, so designedly ambiguous is its phraseology."

Now that is a gross misstatement, because he speaks of it as one of the recent cases mentioned by Mr. Travers, who, in the body of the work had alluded to the case.

"His reason for publishing this paper on the 1st of April, 1827, it appears, is 'because it is obviously of great importance that surgeons should be able to form a true estimate of the value of any proposed method of treatment, *as soon as possible.*' Indeed, Roderick! if you consider this a sound maxim, why did you not allude to Mr. Wardrop's *successful* case of eighteen hundred and *twenty-five*, until *April* eighteen hundred and *twenty-seven*, in which time you had ejected some two dozen or more of your *Yellow Funguses*, without marking upon either of them the slightest notice of this most important improvement in surgery; which, according to yourself, should be known '*as soon as possible.*' There is a something in this conduct far too detestable to be adequately described in print."

I suppose you will hear a description of it by-and-by in another way.

"Such conduct one would scarcely expect from a 'gentlemanly editor' who is anxious that his readers should be made acquainted with pathological facts 'as soon as possible;' but it is what we should anticipate from an editor who places all his reliance for support on the corrupt patronage of *hospital* surgeons, and who appears to hate, mortally hate, not only general practitioners, but all those 'factious and disaffected persons' who have espoused their cause; and it is well known that Mr. Wardrop is one of those persons."

"Factious and disaffected persons" he puts in inverted commas; to show that he means he took these words from the publication of Dr. Macleod, who has no knowledge of, certainly no enmity to, Mr. Wardrop. Now I beg your attention to this; what a most serious charge it is to make against a professional man, that he hates the general practitioners of his own profession. The author of The Lancet knows as well as any man to whom he addresses this charge, that the existence of a medical man, like a man in any other profession, depends upon his reputation, and very often his success depends upon the kind and good opinion of the members of his own profession; and to publish of him that he hates them generally, is undoubtedly raising a hostile feeling in the body of the profession against him, and therefore one of the most injurious impressions, and one of the most unwarrantable, if it be not justly made. A man must be an extraordinary monster in the profession to which he belongs, if he can find any reason to hate the members of it; he must, indeed, not be a gentlemanly man, but he must have every thing that is incongruous; every thing that is bad in principle within him, to hate the members of his profession; and Dr. Macleod, amidst the bitterness of the attack, feels more than any thing in the attack made on him, that he hates his profession. I cannot but think that you will all agree, that every man of honourable feeling must feel highly indignant at such an attack made on him.

"Hence Roderick could not communicate to his unfortunate readers, either of the operations 'as soon as possible;' but on the dissolution of one of the individuals, four months subsequently to the tying of the vessel; when, too, she died of a disease altogether unconnected with the operation, then he announces the decease of the patient as 'soon as possible,' informs you of 'an *attempt*' having been made to secure the artery; that when the body was dissected, the vessel was 'pervious throughout, and that there was no aneurism.' Such is the candid and manly course pursued by a gentlemanly editor, and such the impression which he wishes to convey of this excellent and efficacious operation."

Now, then, what is the charge, to say nothing of his calling Dr. Macleod a blockhead? to say nothing of the character with which he stamps him as speaking of his practice as detestable, speaking of his hatred to his own profession. I say the charge he makes is this: you, who attempt to be an editor, have wilfully concealed an important surgical discovery made by Mr. Wardrop, and published by him in 1825; you have published a dozen of numbers since, or a couple of dozens; you pass it over in silence; but then, when a patient died, although the patient died of another disorder, you have maliciously published that case as an unsuccessful case, in order to point out the gentleman who treated it, against whom you have some malignant feelings, after having allowed the other cases to lie over for two years. Now, to say nothing of this utterly false charge, which I shall prove it to be, Dr. Macleod is incapable of doing such a thing; he feels it to be his duty to conduct his Journal with the greatest impartiality; to give to the public all it ought to have, and to conceal from the public nothing that ought to be concealed; therefore, the attack goes directly to his honour and character, besides charging him with malicious objects to prevent the celebrity and fame of a gentleman in his profession, though not in his department of it, for he is a surgeon, to prevent that by publishing treatment which was unsuccessful, and withholding that which was successful. Gentlemen, I cannot conceive any thing more serious than such an attack, which the author of The Lancet has thought proper to publish, in violation of truth and honour. I shall not go through the whole of this, but you will find it strewed with observations on Dr. Macleod; he talks of him in this way—"on the 1st *of April*, an apt day certainly, out comes Roderick!" (Roar of laughter.) I have said The Lancet is a work of very great circulation, and when an original communication is made by Mr. Wardrop in The Lancet, there is no need for another publisher to publish that, for it is not the way to publish an original communication, copying it from another work; therefore, for him to have taken any such communication from The Lancet, I dare say he would have had an attack on him of another nature—an attack of plagiarism, for he had no right to take it from an original work; if, however, that was an offence, he pleaded guilty to it, in having taken it from a publication which has certainly as great a circulation as his own, and which is read by the same parties. He goes on to say,

"Now Roderick asserts, that intelligence should be communicated 'as soon as possible;' he does not, however, in his April Number, notice Mr. Lambert's operation, an account of which must have been in his possession on the 23d! But he can insert what he conceives will throw *discredit* on the operations, and prove annoying to the operators, although he does not receive it until four days subsequently, as it will be seen that his *dissection account* is dated March 26! His plan, therefore, towards those whom he dislikes, seems to be, to publish no account of their success, and to fabricate cases of failure 'as soon as possible'; a very gentlemanly practice, truly."

Now you will find that he does not even state it to be a failure; the patient died of another disorder, all parties agree to that; all Dr. Macleod published was, that it was then thought proper to examine into the state of the aneurism, and that it was found not to be an aneurism at all, but that it had been mistaken; that the artery had never been tied at all; that another membrane had been tied in mistake—a mistake likely enough to happen to any one; therefore he does not fabricate any case, though that gentleman charges him with fabricating a case of failure. I need not read to you the whole of this, which goes on to speak of Mr. Lambert's case, and so on. Now what Dr. Macleod complains of before you this day is, that, for the purpose of conveying imputation upon his honour, upon his character as a medical man, and upon his science and impartiality as a publisher, the author of The Lancet has himself fabricated falsehoods—notorious falsehoods, and published them to the world. What does the author of The Lancet say? He says, by his plea, not guilty; he does not give any explanation; he leaves you to judge of his motives in making the publication. Now what motives can a man have, Gentlemen, in publishing that which is notoriously false in order to calumniate another man? Will he say he was not in the habit of reading this Journal? Why he makes it the subject of criticism. What right had he to say, if he was not in the habit of reading it, that a publication of Mr. Wardrop's successful case had not been made in it? Is a man to say to the world, I know that a case has not been published, and then, when he finds it has, to say,—upon my word I did not read the work? Will that do? If it will do for a man of honour, and the author of a Journal, it will not do in a court of justice. This being a work of great circulation, as I told you, such a publication will convince his readers, that the author had read all the works respecting which he had published, and the impression made would be that Dr. Macleod had not published the successful case at all, but published a case of failure in order to affect the character of the surgeon. Now the defendant does not pretend to say by his plea, that he is guilty; but if you think the statement libellous, and I should only insult your judgments if I were for a moment to think you would not suppose it was, the only question to be considered would be the amount of damages. Very likely my learned friend, Mr. Brougham, will say the defendant had no malicious motive; that he did not intend to ridicule and laugh at him, and bring him into disrepute; that he did not intend to say this from malicious feelings. Now I will take that argument out of my learned friend's mouth, whatever you might think of it. I told you he used The Lancet as a *scarifier*, but The Lancet is not the only scarifier he has, for he has another. I will read you this paragraph, which appeared in The Lancet of Saturday last—

Mr. Brougham objected to Sir James Scarlett reading the paragraph, on the ground that it was published after the cause of action had transpired, and the action was brought. He was sure that it could not be made evidence of.

Sir James Scarlett contended, that it referred to the present trial, and that he had a right to read it. His firm conviction was, that the Court would consider it evidence.

The Court could not, at this period, say whether it would be evidence or not, and therefore gave leave that the passage should be read.

Sir James Scarlett then read it; it was "To the readers of The Lancet. *Macleod* v. *Wakley*. The '*Yellow Goth*' will be scarified by Mr. Brougham, on Monday next, the 18th inst., in the Court of King's Bench, Westminster."—(This excited immense laughter). The learned Counsel then concluded, by zealously contending, that the plaintiff's honour as a gentleman, and character as a publisher, had been most wantonly attacked by the defendant, who, instead of making any thing like an apology, had advertised for the crowding of the Court, in which he had succeeded, (there being an immense number of surgeons and students present), and no doubt he lamented that the limits of the Court could not hold double the number that could be crammed into it, for the purpose of seeing the plaintiff scarified, anatomised, and dissected, by every thing like sarcasm, that the ingenious mind of Mr. Brougham could suggest, on whom the defendant had placed this odious office, and who, whatever the result of the verdict might be, would have the satisfaction of knowing, that the plaintiff went out of Court with wounded feelings: this was the object of the author of THE LANCET. The Jury would learn how Mr. Brougham acquitted himself of his office, and would return such a verdict as they thought the case deserved.

Dr. M'Michael was then called by Mr. F. POLLOCK, and swore that he was the Registrar of the College of Physicians, and that the plaintiff was a licentiate of that College.

Mr. Alexander Shaw, called by Mr. POLLOCK, deposed, that he was at present studying medicine; that he attended the lectures of the plaintiff, at Great Windmill Street, on the practice and theory of physic, and on Materia Medica, and that his lectures were now as well attended as formerly.

James William Adlard, publisher of the London Medical and Physical Journal, proved Dr. Macleod to be the present editor of it.

Mr. Bellamy (the officer of the Court) now read from a Number of the Medical and Physical Journal of Dec. 1825, page 496, the following portion.

" 15. Case of carotid aneurism successfully treated, by tying the artery above the aneurismal tumour. By Mr. Wardrop."

"This is one of the boldest operations to be found in the records of modern surgery, and the case is unquestionably very interesting and important. It is remarked by the author, that in those cases where it is impossible to reach the artery between the heart and the aneurismal tumour, (instances of which are by no means very rare,) it has been customary to leave the patient to the horrors of his fate; but, says Mr. Wardrop,

" 'As in those cases where the aneurism has been cured, either spontaneously or by tying the artery between the tumour and the heart, the curative process has been effected by the coagulation of the blood contained in the tumour; it is remarkable, that surgeons should not have taken advantage of this fact; and, in those cases where the artery could not be tied between the tumour and the heart, have tied it beyond the tumour.'

" If we suppose a case of femoral aneurism in the middle of the thigh, it is easy to conceive that, when the ligature of the artery, at a distance from the tumour, was first contemplated, it might have been a matter of dispute, whether the ligature ought to be applied below or above the aneurismal tumour; for, it is just as easy to imagine that the blood contained in the space between a ligature placed below an aneurismal tumour, and the first ramifications above the tumour, should coagulate, as that the blood contained in the space between a ligature placed above the tumour, and the first anastomosing branch below it, should undergo the process of coagulation. Besides, there are even advantages that might have been anticipated, by tying the artery beyond the tumour, in such a case. In the first place, the danger of secondary hæmorrhage at the place of tying the ligature would be less, from the little resistance it would, at that part of the vessel, be required to make, to the impulse of the blood, in comparison to what would be necessary, were the ligature placed between the tumour and the heart. In the second place, every collateral branch between the tumour and the heart would be saved, to carry on the future circulation; branches which must be obliterated, were the artery tied at some distance above the tumour."

Lord TENTERDEN inquired, if it was necessary to read more.

Sir JAMES SCARLETT thought it unnecessary.

Mr. BROUGHAM deemed it also unnecessary to read more of this part, but he wished to be at liberty to read a part in page 491, which, he considered, connected with this article.

Sir JAMES SCARLETT opposed it; and

Lord TENTERDEN did not think it had sufficient connexion with the fifteenth article to entitle Mr. Brougham to have it read as part of the plaintiff's evidence; he might make it evidence of his own, if he chose.

Sir JAMES SCARLETT next directed the officer to read passages in pages 236, 289, 331, and 376.

GEORGE GILDER produced an admission from the defendant's attorney, that he was the author of THE LANCET. He proved, that he had bought numbers 194 and 233 of THE LANCET.

The officer of the Court read the passages complained of in THE LANCET, in Number 194, which have already been stated, and which will be adverted to again in the summing up.

Sir JAMES SCARLETT proposed also to give in evidence, the paragraph he had read from Number 233 of THE LANCET.

Mr. BROUGHAM submitted this was not admissible evidence, because the admission of the plaintiff that he was the author of THE LANCET, was dated on the 6th of June; and it was, consequently, for the plaintiff to prove, that he continued the editor subsequent to that period, and that, until that proof was given, nothing stated in THE LANCET could be adduced as evidence.

The COURT, after a number of observations from the bar, agreed with Mr. Brougham.

Mr. BROUGHAM addressed the jury on behalf of the defendant, at considerable length, but the great pressure of other matter will only permit us to give the substance of the learned gentleman's speech. He began by hoping that the jury would dismiss from their attention the ornamental part of his friend's speech in allusion to him, (Mr. B.); it being mere ornament, when he was pleased to talk of a number of persons having assembled to hear an attack made on Dr. Macleod. He was sure, that if any body had interrupted his usual avocations, by attending there with any such expectations, it would be much better for that individual to depart hence, that he might profitably employ his time. Whatever means his learned friend had taken to collect persons for the purpose of hearing his panegyric on Dr. Macleod, he was neither going to detract from that panegyric, nor gratify the enmity of any one who would perchance expect to hear any thing derogatory to the character of the plaintiff. He was about to call the attention of the jury, not to the conduct of Dr. Macleod, but to that of his own client, whose conduct was alone in question; he was about to show that Mr. Wakley, being the Editor of a Journal, which the learned counsel, on the other side, had very justly said was a work of great circulation, had only acted as a rival editor, and was justified in what he had done. Rival editors did not always treat one another with that degree of meekness and courtesy, which the learned gentleman, on the other side, seemed to expect. For his own part, however, he did not see why editors should not treat each other with civility; certain he was, that if there was a court of honour and politeness instituted, Sir James Scarlett would be entitled to sit in it as Chief Justice, (laughter,) and no doubt that learned judge would call before him, and severely reprimand, any one guilty of incivility. If one gentleman said he was a rival editor, the learned Judge would say, that is no reason why you should be rude, therefore I award you to make him three bows and go out of court. (Great laughter.) Courts of law, however, did not deal with matters of this sort in this way, and give damages for incivility; if they did, jurymen would be much more employed than they were, for no man could jostle another in the street, no man could call another Roderick, instead of Doctor, (repeated laughter,) without being called before the court, and the learned judge presiding would require that individual to call out, instead of Roderick, "Doctor" three times, where the gilded pill raised its head either in Warwick-lane, or at the west end, whither it had gone, at the hour at which the first cock calls, and in the name of Esculapius, exclaim Doctor Macleod. (Great laughter.) So, if one gentleman at the bar called another his friend, instead of his learned friend, which the courtesy of the profession entitled him to, that learned friend would be entitled to damages in this court of politeness. The plaintiff and defendant were rival editors, and if they had not treated each other with courtesy, that was to be considered as nothing in a court of law. As to THE LANCET, it was not the learned counsel's intention to say any thing further, than that he understood from doctors that it had rendered great benefit to the profession. He happened to know very little of doctors, and he had no wish to extend his acquaintance among them (laughter,) except as friends; but he had been informed by them that this was the character of THE LANCET. The charge on the present occasion amounted to this:—Mr. Wardrop, a most eminent surgeon, seemed to have performed certain eminent cures, as he, and as others thought; but it was matter of controversy. Controversy was of great importance, because, by the controversy of men, light was brought into the world, and the community were benefited by it. In a science like the healing art, nothing could be more essential, than that an operation, of itself of the greatest importance, having been attempted from time to time, should be canvassed and sifted as to its merits, lest it should be supposed that a cure had been effected, which never had been effected by an operation performed for the purpose,—that the whole evidence on either side should be brought forward, and the truth settled after ample and free discussion. In this respect a controversy had arisen in the present case. It appeared that Dr. Macleod, a respectable physician, and an editor of a rival journal, was inclined rather against the soundness of the view of the subject that had been taken by Mr. Wakley, published in one of his numbers, and therefore the plaintiff inserted an account of the "dissection of one of the cases of aneurism, in which the carotid artery was *supposed* to have been tied beyond the tumour;" was *supposed* to have been tied, clearly showing that he doubted the accuracy of Mr. Wardrop's account; because, if he had not doubted it, the statement would have been very different; it would have been of a case in which he had actually tied the artery. This evidently implied that there had been a defect in the operation, and the whole of the learned counsel's task on behalf of his client was, to rebut that this was an inefficient operation; to rebut that those cases of aneurism, in which the artery had been tied beyond the tumour, were supposed cases; because Mr. Wakley went in detail through all the particulars, for the purpose of showing that this particular case, to which the Doctor had alluded, was a case in which none of the steps had failed; and that the patient had not died from any consequences of the operation, or from any defect of Mr. Wardrop's method. The charge brought against the defendant was, that he had accused Dr. Macleod of having suppressed—wilfully omitted, for some months, the announcing of a successful case, and that he waited until an unsuccessful case occurred, that he might publish it as an instance of want of skill. The learned counsel did not at all deny, but that, in point of fact, such a statement on the part of the defendant had proceeded upon a mistake; but then the Doctor contended, that the defendant ought to have known that he had published a statement of the case, and that he must be taken to have wilfully published an untruth, for the purpose of charging the plaintiff with having been guilty of a wilful omission. The learned counsel would ask the jury if it could be conceived, that any man, possessed of common sense, would sit down and publish, not as against A B, but as against a rival editor, that he had omitted to mention a circumstance in his publication, after there had actually gone forth to the world a very full explanation of the case, if he had really known that that had been so; because it would be as clear as the sun, that in doing it he would have been injuring himself in the most material manner by holding out a statement to the world which they must have known to have been incorrect. Sir James Scarlett had very properly stated that THE LANCET was addressed to the same medical world; that it was a work of great circulation, and that it was read by the same parties who read the London Medical and Physical Journal, and in that statement he admitted, therefore, the impossibility of supposing Mr. Wakley could have made the statement he did, except under the purest mistake. The fact was, that the Editor of THE LANCET had not seen the Number containing the Doctor's statement, when that paragraph was written; he had looked for it in a previous Number, and in the Number in which he might have expected to have found it, but it was not there, and what would have been more easy than that it should have escaped his notice in a subsequent Number. After the woman had died, and the statements had appeared in the plaintiff's work, the defendant thought them unfair and uncandid, and hence the observations that had been made. As to such expressions as *yellow funguses* having been ejected, these were terms with which the Jury, as well as the learned Counsel, were not conversant; and it might be as the plaintiff's counsel had thought, an exceedingly offensive and disrespectful mode of speaking of a respectable antagonist; he (Mr. Brougham) heard Sir James Scarlett saying, he did not care a farthing for that—he hoped he would continue to repeat the expression. He would go through the bill of complaint, and if his learned friend made such an avowal at the end of every sentence, he was sure that the bill of fare would be considerably reduced. Dr. Macleod still continued to give the same lectures, he was prosecuting the same medical practice, but still it was said, it was unfair to make the observations upon him that had been made. Those observations had not been made upon him as a physician, they had been carefully guarded against the possibility of bearing any such construction; they had been made upon him as the editor of a journal, and it was impossible for any man of common sense to construe them otherwise. As to *fabricating cases of failure*, the amount of that was, that a false conclusion had been drawn; and there was argument upon argument to show that a false conclusion had been drawn, but the observation was not made in any invidious sense. With respect to the sentence, " but on the *first of April*, an apt day certainly, out comes Roderick as soon as possible;" why, that was merely a little ridiculous (*laughter*); but the learned counsel was about to submit, that that did not constitute a libel. He was unwilling to go into all the matters his learned friend had opened, though he felt bound to remind the jury what it was they were about to express their opinions upon. They were to say, whether, taking all the case into consideration, and recollecting that this was a conflict between two literary rivals in the medical world, they could say the plaintiff was entitled to their verdict. The plaintiff was an editor, and he had been treated as a journalist by a rival editor in reviewing his work. Lord Ellenborough, who felt a natural indignation at slander, and being a great advocate for the high value of character, used to look upon those accused of a libel with rather a jealous eye; yet that learned Judge, in a libel case, reported in the first volume of Nisi Prius Reports, directed the jury in such a way, that they found for the defendant, on the simple ground, that the observations he had made did not exceed the bounds of due criticism; and, in that case, there was infinitely more of personality, than any thing that had come before the jury on the present occasion. There was likewise a case in the Court of Exchequer, in which a party had been accused of having the greatest impudence, effrontery, and, in short, every thing but honesty, and that that quality he did not possess. No special damages were proved, and the Judges of that Court gave judgment *seriatim*, that that was not a ground for an action, that it was only a remark of one editor upon another, and that it was childish to suppose that courts of law were to be crowded with records of such a sort, and therefore refused even to grant a rule, which was the application the learned counsel on that occasion made to them. In conclusion, he could not but express his full conviction that this action had been brought because *Roderick* had been used instead of *Doctor*, the *yellow Fungus* instead of the *Author*, and so on, which he could never bring himself to believe could be entertained as a ground of action in a court of law. These observations, he had no doubt, the jury would give as much attention to as their intrinsic weight deserved. The observations that had been made by the defendant, were those of one editor respecting another, and fell within the fair limits of criticism. He hoped that nothing that had fallen from him, from the beginning to the end of his address, would be considered as a reflection, in the slightest degree, upon the character of the respectable plaintiff.

Lord TENTERDEN addressed the Jury to this effect:—This is an action for a libel in a publication of which the defendant appears to be the editor, called THE LANCET; it has been admitted, that the defendant is the author. The matter of the publication relates to the plaintiff's conduct as the editor of another medical publication called, I think, *The London Medical and Physical Journal*. Now, Gentlemen, a man has an equal right by law, to have his character as an editor protected, as he has a right to have his character as a professional man, or as a man of business of any other kind protected. In remarking, however, and criticising upon the works of literary individuals, whatever is fair and reasonable to be said respecting them or their conduct, in presenting their works to the public, may lawfully be said; but if any person goes beyond the reasonable, fair, and rigid limits of criticism, and makes an attack on the character of another, he is answerable for it in a court of law. The subject of the plaintiff's publication appears to be, the treatment of a disease called aneurism. The learned counsel on behalf of the defendant, has addressed you on the subject of some controversy between the plaintiff and defendant. I cannot find that any controversy existed between them at all. It appears that some attempt was made to cure the disease, by tying the artery beyond the place where the tumour was; and the plaintiff, in his first note on that subject, speaks of that as a mode, that if it be practicable, is of very great advantage in the science, and is, therefore, to be very much recommended, if it can be adopted with success. But you all know very well, that, whether an operation can be done with success or not, will depend on the result of many cases; there must be several cases tried before you can come to a decision. Now the plaintiff had, as early as the month of December, 1825, given an account of the cure of this disease, called carotid aneurism, by Mr. Wardrop. It is mentioned in the body of the work, and by the author called "A case of carotid aneurism successfully treated by Mr. Wardrop," referring to the place where the operation was performed. This is a case of a lady, appearing to have been published by Mr. Wardrop himself; and the editor, the plaintiff, says, on the result of the case, "The result of the case has fully proved the legitimacy of this reasoning, and as it is the first successful operation of the kind which has been placed on record, we should consider it a great omission were it not to be found in the pages of our Journal." Now, this is very important for you, in the consideration of this case, to bear in mind, that as early as the month of December, 1825, the plaintiff's work contains an account of the treatment of a case of this kind by Mr. Wardrop; this is very important for you to be reminded of, for you will find, when the defendant's conduct comes to be looked into, that he asserts that, till the month of April, 1827, the plaintiff gave no notice whatever of that case—the assertion, therefore, is manifestly false. It is said, he might not have known it—it must have been written under a mistake. Gentlemen, before a man writes it is his bounden duty to see that the assertion he makes is true; it is not for him to say now, that the injury is done by this assertion in the work, that he was ignorant of the fact. The plaintiff having published that in the month of December, 1825, does not appear to have noticed any other case of that kind until you come to the month of April, 1827. [The learned Judge now read through the alleged libel, making, as he proceeded, appropriate and perfectly impartial comments.] Now that is the matter of which the plaintiff complains. That there is an attempt to cast ridicule on the plaintiff is not denied. I think it can hardly be said, there is not in this a great deal of bitterness of sarcasm and of ridicule; but if all this had been done by the Editor of the London Medical and Physical Journal, I should say the defendant is entitled to your verdict. But is it all that is said of this case, or made known of this successful treatment? It is said that Dr. Macleod never publishes one of the successful cases, withholds them all from his readers, and as soon as an unsuccessful one occurs he gives them that—was that so? In the month of December, 1825, he gives an account of one, in a way very complimentary to Mr. Wardrop; and if you find the statements on this one bottomed on a false foundation, it is for you to say whether they will, in your estimation, injure the plaintiff, or whether they are called for by what he had done as an editor—if they are, you will not give him your verdict; if you think they are founded on falsehood—if you think they are not fairly called for, the plaintiff is entitled to your damages, and you will consider the amount, only taking care they are not excessive.

The jury consulted together for a few minutes, and returned a verdict for the plaintiff—Damages,* FIVE POUNDS!!!!

[The announcement of the damages was followed by a GENERAL LAUGH.]

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 16, 1828.

Mr. ARNOTT in the Chair.

This evening, Dr. Ayre introduced the subject of diabetes; and after having enumerated the various opinions of authors on this disease, he stated his own view of the pathology—that it essentially consists in an increased vascular action of the kidneys, a state of chronic inflammation. Hence, he recommended the local abstraction of blood by means of cupping, and adduced a case, illustrative of the benefits resulting from this mode of practice: in respect to *diet*, on which much stress is laid in this affection, he did not attach importance. Dr. Ayre then detailed a case of diabetes mellitus, occurring in a military man. When first seen by Dr. Ayre, he voided from 32 to 34 pints of urine daily, and he had inordinate thirst, drinking upwards of 26 pints in the space of twenty-four hours. He had become much emaciated, and his appetite, formerly voracious, had now greatly failed. The treatment pursued was, occasional cupping on the loins, the exhibition of ten grains of Dover's powder at bed-time; abstinence from wine or fermented liquors, but no particular directions as regarded the quantity of animal or vegetable food. From the statement read, it appeared that the flow of urine, and the thirst, progressively decreased, at the same time the appetite improved. On the eighth day of treatment, the quantity of urine voided was less than the fluid taken by the mouth: eventually, the patient got quite well, and Dr. Ayre affirmed, that he met him, about a week since, when he was in good health. The relief experienced from the cupping was said to be strikingly manifest.

The pathology of the disease, as connected with an inflammatory action of the kidneys, was strenuously opposed by Dr. Barry, who first remarked, that dissection does not substantiate this opinion; and he referred to a case related by Dr. Baillie, in which it is said, "the vessels, in some parts, *approached* to the appearance of inflammation;" also, to cases detailed by Morgagni and by Dr. Rollo. The disease in question was regarded by Dr. Barry as referrible to a depraved condition of the fluids of the body at large, and he entered into a long exposition of the chemical nature and changes of the fluids in this affection. He pointed out the well-known fact, that, in diabetes mellitus, the urine is free from one of its ordinary constituents—urea, the formation of which mainly depends, as has been proved by experiment, on the quantity of *azote* taken in with the food. With these views, Dr. Barry contended, that by limiting the diabetic patient to a diet of animal food, we provide the material for supplying the deficient animal salts, and counteract the tendency to the formation of sugar. In further confirmation of the disease being dependent upon the morbid condition of the fluids, it was stated by Dr. Barry, that sugar had been discovered in the blood by Dr. Wollaston and others.

With respect to the case adduced by Dr. Ayre, it happened strangely enough, that the patient had recently placed himself under the care of Dr. Barry, who said, that he had *also* effected a *cure* by the strict observance of a regimen, consisting almost exclusively of animal food. This version of the case, apparently throwing a slur on Dr. Ayre's credibility, was warmly met by the latter, and the discussion at length became so exclusively personal, in reference to the veracity of the patient, that it was checked by the Chairman. Much merriment was excited by the relation of the contradictory accounts given by the patient to the "two doctors."

The "humoral pathology," of Dr. Barry was met with a flat denial of Dr. WOLLASTON having discovered sugar in the blood of a diabetic patient—and it was affirmed that Dr. W.'s experiments, with those of Dr. Marcet, as contained in the Philosophical Transactions, went to prove that the blood, before it reached the kidneys, contained "*no trace whatever of sugar.*"* And it was further remarked, that such is the result of experiments instituted by Bostock, Brande, Nicholas, Thenard, &c. It was argued, also, that if the disease existed in the blood, then the kidneys must be considered, not as "*secretory*," but simply "separating," organs; and, it might be said of all morbid depositions, that they existed in the blood, if the principle were admitted in this case; as, for instance, when bone is deposited in the coats of an artery, according to the hypothesis advanced, it must have arisen from a morbid condition of the fluids generally.

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* Laid at 2,000*l.*

* Vide Philos. Trans., vol. ci., 1811, p. 96.

Dr. Johnstone referred to the dissection of two fatal cases of diabetes, which had fallen under his observation, in both of which the kidneys were apparently sound; but, with one patient, a young lady, the lungs were much diseased.

Mr. North made some remarks on the circumstance of the saccharine secretion being vicarious; and he referred to the experiments of Berzelius, who states that, under ordinary circumstances, the bile contains sugar; but, in cases where the liver was diseased, he found no saccharine principle in the bile. In reference to the assertion, that animal food would check the disposition of an organ to produce sugar, Mr. North instanced the female during lactation, whose milk yields a large quantity of sugar; far more even than the quadrupeds, which feed exclusively on vegetables.

Dr. Milligan detailed a successful case, treated by the exhibition of hydro-sulphuret of ammonia, and confining the patient to animal food. Dr. Stewart alluded to the dry state of the skin, indicative of its function being suspended; and Dr. Barry spoke of a case in which *urea* had been administered, but without benefit.

These were the only important points elicited in the discussion; there was some disputation in respect to the knowledge of the "ancients" in this disease; it being contended by Dr. Barry, that Galen, Aretæus, and others, have fully described it, (the former under the title of "*hydrops matellæ*," or "urinal dropsy,") while, in reply to this, it was argued by Mr. Lambert, that, until within the last century, we possessed no knowledge of *diabetes mellitus*: he admitted that the ancient authors had described an immoderate flow of urine, but had merely taken a general view of the subject, and had omitted to notice the all-important fact, of the existence of a saccharine principle in the urine of diabetic patients.

Dr. Barry will bring forward a paper, at the ensuing meeting, on Typhus Fever, in which the question of the morbid condition of the fluids will be fully entered upon.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

CASE OF A RARE SPECIES OF EXCRESCENCE, GROWING FROM THE FEMALE MEATUS URINARIUS.

A woman, about 60 years of age, was sent by Mr. Allan, surgeon, at Epsom, into this Hospital, on the 4th of Feb., on account of a very painful vascular excrescence growing from the orifice of the meatus urinarius. It was found to be attached to the whole circumference of the mucous membrane of the orifice of the urethra, and was exquisitely painful, and bled profusely when touched. It was of a florid red colour, and about the size and form of a small horse-bean.

This complaint commenced two years ago without any obvious cause, and gradually increased in severity. For some months past she has suffered almost constant agony from attempts to pass her urine, and has been deprived of all sleep in the night. When she drinks even a small quantity of the mildest beer, it appears (as she expresses it) immediately to fly to the part, and to produce the most intolerable irritation. Her general health has suffered severely from this local affection. At no period of its progress has it been accompanied with any *discharge*.

The tumour was easily removed by a pair of knife-edged scissors.

Mr. Wardrop states that he has met with only three examples of this disease. The first occurred in a girl before the age of puberty. The tumour was in this case of a bright scarlet colour, of a longish and flat form, and hanging by a narrow neck from the orifice of the urethra, and was exquisitely tender. It was easily extirpated, and she remained perfectly well until some time after her marriage, when she again applied on account of a return of the disease. The tumour now assumed the appearance of a bright scarlet fungus encircling the meatus urinarius, and was attended with such excessive tenderness as to prevent sexual intercourse. The tumour was removed, and upwards of two years have elapsed since the operation, since which time nothing is known of her history.

In the second case, the disease appeared in a lady about 30 years of age; and besides the great misery it produced, was accompanied by a profuse muco-purulent discharge. A fungous tumour, the bulk of a pea, of a bright scarlet colour, and exquisitely sensible to the touch, projected from the orifice of the urethra, and adhered to it by a broad basis. This fungus, along with a portion of the healthy canal, was snipped off with a pair of scissors, and the patient, who lived 13 years after the operation, had not any return of the disease.

In the third case, the lady became impregnated; and having had a very difficult labour, the tumour was so squeezed by the passage of the child's head that it sloughed.

Morgagni, to whose works we naturally refer on all subjects of pathological research, has accurately described this affection in his forty-second epistle, and refers to several cases which had come under his notice. He mentions that there is a red, fleshy, fungous excrescence, of the size of a *bean*, which sometimes grows from the female urethra. His words are, "Inæ observatio excrescentiæ, carneæ, rubræ, fungosæ quæ fabæ magnitudine prodietar en ille orificio," &c.

Several cases of this rare disease have also been observed by Chaussier and Dubors, and particularly noticed by Madame Lachapelle; as well as by Roresemuller, Vogel, Kaldibrand, Prochaska, and some other German pathologists.

CASE OF ERYSIPELAS,

Successfully treated by Incision, by CHARLES WITT, *Esq., Surgeon.*

Mr. M. met with a compound dislocation of the ancle at the end of August last, in which the sole of the foot was turned inwards, the fibula protruded very much, and the interior of the joint was considerably exposed. The dislocation was reduced with some difficulty, but nothing worthy of notice occurred, except the uniformly improving state of the joint; the external wound healed about the beginning of November.

Very early on the morning of the 25th of the same month, I was summoned to attend Mr. M., and found, on my arrival, he had been attacked during the early part of the preceding night with all the symptoms of erysipelas: the rigor, from his report, appeared to have been unusually severe, and to have lasted at least six hours; the headach was intense, the pulse about 120, with great heat of skin; the tongue foul; the wound had ulcerated a little, and there was a slight blush around it. This attack I attributed to Mr. M. having been exposed for several days previously, to much mental excitement. Five grains of calomel were immediately given, and an active purgative mixture to be taken at intervals, till the bowels were freely relieved; the ancle was fomented and poulticed. Mr. M. continued nearly in the same state during the day, the calomel was repeated at night, and followed by the purgative. On the Monday morning he felt a little better, although the erysipelas was spreading: another dose of calomel was now given, and large doses of the sulphate of magnesia, and tartrate of antimony, were directed to be taken every three hours.

On Tuesday morning the erysipelas had extended considerably, and now occupied the whole of the leg, from the toes nearly to the knee; the skin was bright red, but not vesicated; the limb swollen, but the swelling was not very firm. Having frequently experienced the good effect of blisters in checking the progress of erysipelas at the Northampton Infirmary, I had one in readiness; fearing, however, that these measures might not be sufficient, and that, from the rapid extension of the inflammation, it might in a few hours spread over the whole limb, I decided on immediately making an incision down the front of the leg. By holding a lancet firmly with the thumb and finger, at a short distance from its point, I could fix precisely the depth of the incision, which, by cutting rapidly, the duration of the pain was much diminished; in fact, the patient hardly experienced any pain from the cut, although it was carried to the length of between six and seven inches. No large vessel was divided; and, though the bleeding was encouraged by fomentations, not more than half a dozen ounces of blood were lost. A large poultice was applied round the leg. Mr. Wardrop was consulted on the case in the course of this day, and his approval of what had been done, was gratifying, both to myself and our patient. On the same evening it was satisfactory to observe, that the inflammation was completely arrested; and on the day after the incision was made, it was very much diminished, both in extent and violence. Nearly the same measures were continued, and on the fourth day there was no erysipelas whatever; the wound was suppurating, and in a few days Mr. M. was so well as to be able to go into the country. It may be doubted, when I state, that the incision in this case occasioned but a very slight pain; but if we can rely on Mr. M.'s own words, he said that he felt so little, that he thought I was just going to begin to make the incision the moment it was finished.

Liverpool Street, City of London,
6th February, 1828.

THE LANCET.

London, Saturday, February 23, 1828.

It is with the deepest regret, we have learned from a quarter on which we are disposed to place considerable reliance, that the health of the King, during the past week, has been in a state calculated to excite no slight degree of anxiety in the breasts of his loyal subjects. We sincerely hope, that the statement which has been communicated to us may be exaggerated; but, if there be any foundation for it, we cannot help suggesting to his Majesty's ministers, the propriety of allaying, by the publication of a bulletin, the apprehension, which otherwise cannot fail soon to exist among all classes of the community.

The Yellow Goth made his first appearance in the Court of King's Bench on Monday last. The poor fellow obtained FIVE POUNDS at our expense, and a GENERAL LAUGH at his own.

> " - - - - - - - - Si quis
> Opprobriis dignum laceraverit, integer ipse;
> Solventur risu tabulæ."

The law of England considers interest in the event of a suit a sufficient ground for rejecting the testimony of a witness. How far this principle may be well founded, or whether the ends of justice would not be more effectually promoted by indiscriminately admitting all witnesses, and allowing those objections which are now taken to their competency to be received only in the shape of evidence against their credibility, it is not our business to discuss; but there can be little doubt that practical good frequently results from the total exclusion of interested testimony; and that unless the effect of such testimony, when it cannot, on account of certain legal distinctions, not essentially affecting its character, be excluded, were counteracted by great vigilance and discrimination on the part both of judges and juries, the ends of justice would often be defeated. Suppose, for instance, the case of Rolfe v. Stanley, a case which has formed almost the exclusive topic of conversation and comment among medical men during the past week, had been tried at an assize town, by a common provincial jury. The chances in that case would have been against the plaintiff's recovering damages for the injury he sustained through the unskilfulness of a hospital surgeon, because such a jury would, in all probability, have been unable to discriminate between the reputation and the interested character of six hospital surgeons, apparently leagued together for the purpose of screening a colleague and partner in corruption, because such a jury would probably have been unable to take an accurate estimate of the circumstances which, in the opinion of a Middlesex jury, rendered the testimony of those six hospital surgeons, with Sir A. Cooper at their head, and John Abernethy at their tail, totally and absolutely worthless. Among the jury who, recorded by their verdict their opinion of the professional ignorance of a hospital surgeon, in direct opposition to the testimony of the six Bats, some were probably readers of medical journals, and all, we doubt not, were more or less familiar with the topics which, through the medium of a free press, have engaged public attention, and afforded matter for general animadversion. If there be any one of the jury who does not possess this information, and who, nevertheless, by force of his own good sense and judgment, came to the conclusion that the six hospital surgeons were too deeply interested in the event of the suit to give unbiassed evidence, let him turn to the second volume of The Lancet, and he will there see cause for reflecting with satisfaction on the soundness of his conclusions. He will there see how the system of appointing to hospital surgeoncies works, and to what extent one hospital surgeon is interested in supporting and screening another. "Are the surgeons of Guy's and St. Thomas's," asked Sir ASTLEY COOPER, on the occasion to which we allude, "men whom I could possibly feel disposed to injure? Mr. TRAVERS was my apprentice, Mr. Green is my godson, Mr. Tyrrell is my nephew, Mr. Key is my nephew, Mr. Morgan was my apprentice."

What were the observations of THE LANCET on this cool, but not very sagacious, avowal on the part of the worthy Baronet, whose intellectual pretensions have since been raised upon a more solid basis, by his denunciations of the "reptile press?"

> "Sir Astley has very satisfactorily shown, that he could not possibly be actuated by any unfriendly feeling towards the family party, who have acquired exclusive possession of the professional distinctions and emoluments of these institutions—a party united to each other, not only by the amiable ties of consanguinity, but by the no less delightful *vinculum* of a common participation in the sum of 3600*l.*, which they annually extract from the pockets of the students. Who can believe, for a moment, that Sir Astley intended to disturb the pleasant domestic arrangement which he has described, or, that he could have meant to embitter its fruits, by engrafting the apple of discord on the following chirurgico-genealogical tree?
>
> Sir A. COOPER, pater familias.
> Mr. TRAVERS, Sir A.'s apprentice.
> Mr. TYRRELL, Sir A.'s nephew and apprentice.
> Mr. KEY, Sir A.'s nephew and apprentice.
> Mr. MORGAN, Sir A.'s apprentice.
> Mr. GREEN, Sir A.'s godson.
>
> *Lancet, Vol. II.*

Another surgeon has since been added to the establishment of Guy's, and that surgeon is another nephew of Sir A. Cooper. Seeing, therefore, how the system works, and recognising the principle, that the value of testimony cannot but be most materially affected, by the interest which a witness has in the event of a suit, can any man feel the least surprise, that an honest, intelligent, discriminating Jury, should have considered such evidence as was given by the six hospital surgeons, wholly unworthy of exercising the smallest influence on their verdict.

But, even in calling these hospital surgeons into the witness-box, Mr. Stanley acted upon a principle of selection, which, though it may have escaped the notice of the public, as it did that of the counsel for the plaintiff, cannot fail to excite the surprise, if not the suspicion, of professional men. Why did he not call the surgeons of his own hospital, who, from constant observation of the manner in which he discharged his duties as a hospital surgeon, were best able to speak to his surgical abilities, and most competent to bear testimony to his professional skill? He called, indeed, Mr. Abernethy, who, for many years past, has scarcely witnessed a surgical operation in his own hospital, and whose opinion of Mr. Stanley, when it has not been delivered under the sanction of an oath, has already been recorded in the pages of this Journal. Why did he not call Mr. Lawrence, Mr. Vincent, Mr. Earle, or Mr. Lloyd? He called none of the surgeons of St. Bartholomew's Hospital to testify to his surgical character! but he called Mr. Green and Mr. Travers of St. Thomas's Hospital; he called Mr. Brodie of St. George's Hospital; he called Mr. C. Bell of the Middlesex Hospital, and he called Sir Astley Cooper, who has retired from practice, and is of no hospital at all. Whence, we should be glad to know, arose this principle of selection, and how are we to account for the marked exclusion of the testimony of Mr. Stanley's immediate colleagues! Are Mr. Stanley's surgical capabilities best estimated at a distance from the scene of his operations, as prophetic effusions are said to be most reverenced out of the country of the prophets? Was it from modesty that he declined calling the surgeons of his own Hospital, lest his feelings should be wounded by the extravagance of their panegyric? Was he bashful, like GUTHRIE, or "anxious," like his too-sensitive witness, Mr. CHARLES BELL? From whatever cause, the testimony of the Surgeons of St. Bartholomew's Hospital was excluded, these facts are, at least, certain; first, that all Mr. Stanley's witnesses were, in a moral sense, interested witnesses, though not sufficiently so to be legally inadmissible; and, secondly, that even those witnesses were selected from a portion of an interested body, the least conversant with Mr. Stanley's practical skill, and the least capable of speaking to his professional merits from their personal observation and experience.

Let us look a little at the evidence of the six hospital surgeons, and see whether the Jury were not justified in their estimate of its value. The following question is put to Sir A. COOPER:—

> "Supposing, Sir Astley, upon Mr. Stanley's examination of the knee, he discovered a hard substance had entered into the knee, as you have heard, what, in your judgment, would have been the course to be pursued? —The very one adopted. The case was a very doubtful case; if Mr. Stanley could not determine the nature of that case, I should say, that that man would be presumptuous who would pretend to decide upon it, because it is well known, in our profession, that no person is better informed in anatomy than Mr. Stanley.

Let the reader compare this answer with the facts. The question, which the jury was called upon to decide, was, whether Mr. Stanley had treated a particular case skilfully or unskilfully, and Sir Astley cuts the knot by declaring that it would be presumptuous to doubt Mr. Stanley's skill. When the worthy Baronet shall have added a small tincture of logic to his other acquisitions, he will, perhaps, discover that this is what is commonly called a begging of the question. It is admitted, on all hands, that Mr Stanley was wrong in his diagnosis; he mistook for a fracture of the patella, what turned out to be no fracture at all; he supposed a piece of flint, such as we shall presently represent under five different phases, situated at the distance of one inch from the knee-pan, to be a portion of fractured knee-pan; and, even when the integuments had healed over the flint, and the entire knee-pan was subject, as it had always been, to his inspection, excellent anatomist as he was, he still considered the foreign body, at the distance of one inch from it, to be a portion of fractured bone. All the six hospital surgeons concurred in bearing testimony to Mr. Stanley's excellence as an anatomist, but the jury, it seems, were at a loss to understand how the excellent anatomist could, at one and the same time, see and feel his patient's patella entire, and of its natural dimensions, and suppose a foreign body in *the same knee*, and at the distance of one inch from it, to be a portion of that patella. So much for the diagnosis with respect to which Sir A. Cooper has declared, that it would be presumptuous in any man to suppose that he could have formed a better, seeing that Mr. Stanley is well known to the profession as an excellent anatomist. Now for the treatment, with respect to which, also, Sir A. Cooper has declared that he himself would in no particular have varied the course adopted by Mr. Stanley.

> "Then I will only ask you, Sir Astley, if I may presume to put the question, if you had been in attendance, in what respect would you have varied the course he adopted?—In none."

Let the reader bear in mind that Mr. Stanley, supposing this to be a case of fractured patella, removed the bandages on the fifth day, and *exercised the limb on that and on the 6th, and 7th day*, though it is known to every tyro in the profession, that in such cases the bandages ought not, except under very peculiar circumstances, to be removed, nor motion given to the joint, before the fifth week. Yet, in no single particular, says Sir Astley, would he have varied the treatment adopted by Mr. Stanley. Let us try the worthy baronet's consistency by a test to which, however it may pinch him, he cannot reasonably object, namely, his own evidence in another part of his examination ; and mind, we do not quote from the ordinary newspaper reports of this trial, but from the notes of a short-hand writer expressly employed for the occasion :—

" Is it not usual to examine by sight and by touch ?—I should say, a man who frequently moved a fractured limb, removed bandages, and so on, was an extremely unskilful surgeon."

What say you, then, Sir Astley, of the surgical skill of Mr. Stanley, who removed the patient's bandages on the fifth day, EXERCISED THE LIMB on the fifth, sixth, and seventh days, and only desisted from this plan of treatment, in consequence of the excruciating pain, which, according to the evidence of Mr. Rolfe, senior, it gave to the patient? How can you reconcile these facts, Sir Astley, with the testimony which you have borne in the witness-box to Mr. Stanley's surgical skill ? How can you reconcile these facts, Sir Astley, with your declaration, that you would in no one particular have varied the treatment adopted by Mr. Stanley? How, Sir Astley, can you reconcile the evidence you gave in one part of your examination, with your negation of it in another? Or what right have you to complain, that an honest, intelligent jury rejected your testimony, as well as that of the five bats who co-operated with you, as unworthy of influencing their verdict?

The evidence elicited from Sir ASTLEY COOPER by the counsel for the defendant was, if possible, even more contraditcory than that which was extracted from him in cross-examination. Let the reader mark the following instance of this fact :—

" Re-examined by Mr. Sergeant WILDE.

" To prevent misconception, Sir Astley, you have heard described the course of examination adopted by Mr. Stanley ?—Yes.

" Does that examination appear to you to have been such as a skilful and attentive surgeon ought to have adopted ?—I should say, really he has done every thing a good surgeon ought to have done under such circumstances, and that it appears to me he has left nothing undone."

Now to an ordinary apprehension it might seem that a discreet advocate ought to have been contented with this answer, and to have sat down ; but, luckily for the cause of truth, and for the further enlightening the minds of the jury, Mr. Serjeant WILDE was not satisfied, but proceeded to put a question to Sir ASTLEY which elicited a most important admission in favour of the plaintiff.

" Now, as far as you can, I would thank you to forget all your communications with Mr. Stanley, and to address your answers exclusively and entirely to what you have heard from the witnesses in that box, and I will again put the question to you I put before—Has any thing you have heard from Mr. Lilly, or the other gentlemen who have been examined ; has any thing been stated by them which appears to manifest ignorance or want of attention on the part of Mr. Stanley ?—*I came into Court with some doubts ;* it was Mr. Lilly's evidence that made me so firm as I am upon it."

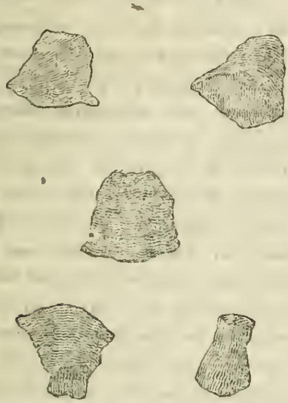
It is scarcely necessary to observe, that Mr. Sergeant Wilde put no more questions to his own witness. We have not the same motives for forbearance, and we shall therefore proceed to put a question to the worthy Baronet, to which he may, if he think fit, give an answer through the medium of the "reptile press." You have stated, Sir Astley, in the witness-box, that you had some doubts before you came into Court, and that your opinion was very much influenced by the evidence of Mr. Lilly. Now, Sir Astley, we ask you whether you had not, before entering that witness-box, given to the defendant's attorney a written opinion, decidedly in favour of Mr. Stanley ; and whether you had not, unequivocally, expressed to Mr. Vincent, the plaintiff's attorney, your belief that the plaintiff in this trial, had no case whatever, and would, in all probability, be nonsuited? If this be true, Sir Astley, and we are in possession of the most indubitable evidence that it is true, how can you account for a declaration, intended or calculated to impress the Jury with a belief that you came into Court a perfectly impartial man, with a mind entirely free from all prejudice or prepossession; and that, though you entertained some doubts before the trial, as to the propriety of the treatment adopted by Mr. Stanley, those doubts were removed by the evidence of Mr. Lilly? A Middlesex jury, Sir Astley, is, for the most part, composed of too shrewd and far-seeing a body of men, to be caught by extraordinary professions of impartiality on the part of witnesses who are substantially interested in the event of a suit: and here again, you have no right to complain, if they rejected your testimony as unworthy of influencing their verdict. The Jury were men of the world, and well knew that the defendant's attorney would not have called you into the witness-box, if he had not been well assured that before you entered it, your opinion had been favourable to his client. Answer the question, Sir Astley, which we have just put to you, and the Jury will then have an opportunity of seeing whether the probabilities upon which they no doubt calculated, as men of the world, do not exactly coincide with the facts.

But we must take leave, for the present, of Sir Astley, and, as to the testimony of the other five Bats, it is really so identically the same, both in substance and spirit, with that of the worthy Baronet, that it is unnecessary to comment upon it. Mr. Brodie expressed his opinion, that if more active treatment than that adopted by Mr. Stanley, had been resorted to, it would have been extremely injudicious; and in that opinion, we presume, every body will concur. The complaint against Mr. Stanley was, not that his treatment was not sufficiently active; but, first, that he formed a wrong diagnosis of the injury; and, secondly, that after having formed a wrong diagnosis, his treatment of the supposed injury was most injudiciously active, inasmuch, as he removed the bandages on the fifth day, in a case which he supposed to be one of fractured patella, and exercised the joint on several successive days, to the excruciating agony of the patient.

We regard the result of this important trial, as a most signal defeat of an attempt to screen professional incapacity, because that professional incapacity was clothed in the grave garb of office, and identified with the interests of the abettors of a corrupt system. The verdict of the jury, in this case, is a death-blow to the pretension of the Bats and Corruptionists; and the voices of pure surgeons, and Aberdeen doctors, can never again be raised against the great body of English surgeons, with Mr. Lawrence at their head, which they have heretofore had the effrontery and the audacity to stigmatise as a subordinate department of the profession.

The following sketch accurately represents the laceration of the integuments at the part where the flint entered. The limb, however, is represented as much too fleshy, Mr. Rolfe being particularly thin; so much so, that the flint produced a swelling apparent to the sight.

The following drawing represents, under five different aspects, the piece of flint, situated at the distance of one inch from the entire patella of Mr. Rolfe, and mistaken by Mr. Stanley for a fractured portion of that bone.



In the month of August last, we gave an account of a case of Popliteal Aneurism, in which Mr. Brodie tied the femoral artery: we then remarked, that no good could be expected from the procrastination of the operation, unless the "eminent" surgeons of that institution entertained an opinion that advantages would arise by waiting until the aneurism obtained its full growth! With regard to the operation itself, we also stated the clumsy and unscientific mode in which it was performed, and that a ligature was rudely thrust beneath the vessel, conducted by a common dressing probe, in place of a proper aneurismal needle. We expressed our fears of the evil consequences which might arise from so large a portion of the artery being deprived of its vascular connexions with the surrounding parts. These fears, unfortunately for the patient, were too fully verified. On the 28th day after this operation, hæmorrhage commenced from the wound. On the 30th day, it was determined to perform a *second* operation;—to tie the trunk of the common femoral artery. This was the operation intended to be performed, as stated by Mr. Brodie in a clinical lecture. On the 31st day after this second operation, the patient had bleeding from the wound; and, from a succession of hæmorrhages, died eight weeks after its performance. On dissection, it was found that the ligature, instead of being placed round the *common femoral artery*, as had been intended, had been tied round the superficial femoral, and so near to the place where the profunda comes off, that there was not sufficient room left for a coagulum to be formed. The coats of the vessel, at both places where the ligatures had been tied, were sound. The cavity of the femoral *vein* was *obliterated.*

This is *our* report of this interesting case; interesting we call it, as affording a proof of the present state of surgery among the *pures* of this metropolis, and a practical illustration of the superior advantages which students at this Hospital possess over those who have only to boast of a plebeian education! It is an old and a wise saying, that we profit from nothing so much as from observing the mistakes of others; on this principle we would recommend the Hospital of Wonders to all those who thirst for sound chirurgical knowledge. For the accuracy of our report of the case, we pledge ourselves; but, in justice to the "eminent" operator, we subjoin his own account of it; challenging him, at the same time, in proof of our accuracy, to invite us to the next meeting of the Bat Club, when, with the preparation before their eyes, these unprejudiced characters may judge between us.

"ST. GEORGE'S HOSPITAL.

Popliteal Aneurism in both Hams.—Occurrence of Secondary Hemorrhage, treated by Mr. Brodie.

In the absence of any thing very interesting at this hospital during the past week, we subjoin a case which occurred a short time ago, when it excited considerable interest in the hospital, and furnished an opportunity for much misrepresentation out of it; we insert it as involving some practical questions of importance.

S. Ryland, ætat. 53, a carrier, was admitted, August 1, 1827, under Mr. Brodie, with aneurism in the left ham, of which he gave the following account. Three years ago, whilst in the act of jumping from his cart, he was suddenly seized with severe pain in the calf of the left leg, which after a time subsided. About twelve months ago he first noticed a small throbbing tumour, nearly the size of a nut, in the ham, previously to which the foot and ancle had become swollen and œdematous. About this time he was greatly harassed in mind and body, the effect of which upon the tumour was very marked, for it increased considerably in size, and has continued gradually to enlarge ever since. Upon his admission there was found in the left ham a tumour which occupied the whole space between the ham-string tendons, appeared on the inside of the knee-joint, above the inner condyle, where the gracilis and sartorius seemed stretched over it, and again on the outside of the joint, where it had doubled over the tendon of the biceps flexor. The pulsation was strong, so much so, indeed, as to be visible at some little distance; but it ceased entirely when the artery was compressed at the groin, or for two or three inches below it. On the outside of the knee, and particularly in the ham, the sac appeared to be near the surface, whilst on the inside it was covered, as above mentioned, by the muscles. Not the least discolouration, however, or lividity of the skin, was present. The leg was somewhat bent upon the thigh, and its motions a good deal impeded, but there was little or no œdema, nor was the foot colder than the other; pain at times severe. His health was good until he met with the moral affliction alluded to; since which he has been exceedingly nervous, and subject to a sense of sinking at the epigastrium. On his admission he was rather feverish and irritable; tongue white and coated; pulse quick and hard. The other ham was now examined, when a distinct aneurismal tumour could be felt, pulsating with great violence,* and on the right side of the neck the carotid, just as it mounts from beneath the clavicle, was observed beating very forcibly. Under these circumstances he was kept quiet, and twice bled; and, on the 9th, the jerk and frequency of pulse, with the flushing of the countenance, &c., having greatly subsided, the operation was performed in the usual manner (*at St. George's!*) On tying the ligature, the pulsation in the tumour ceased entirely, and never afterwards returned. In the evening the foot became rather cold, and bottles of hot water were applied. Next day he was seized with severe pain in the side, increased on inspiration, which was relieved by the abstraction of eighteen ounces of blood from the arm. The wound did not unite by the first intention, but superficial adhesions formed, which it was necessary to break up with the probe, to give vent to some matter beneath. The granulations which arose were spongy and indolent; there was little appetite, but the pulse was moderate, and the tumour gradually, but steadily, diminished in size. On the 23d (fourteen days after the operation) the ligature separated; but still the wound seemed little disposed to heal, and the thigh around became swollen, requiring the application of a poultice. He appeared to be doing very well till the morning of September 6th, when four ounces of florid blood issued in a stream from the wound. Pressure on the groin commanded the hemorrhage, but in the night there was a threatening of its return, and on the morning of the 8th it took place to a greater extent. The tourniquet was applied, but, on loosening it some time afterwards, an oozing was observed, and Mr. Brodie thought it advisable to tie the artery in the groin, which he did at two P. M., two hours from the occurrence of the bleeding.* The oozing and pulsation in the wound ceased immediately. He went on tolerably well till the 15th, when there was a good deal of fever and irritability, which were relieved by freely evacuating the bowels. Neither of the wounds showed much disposition to heal, and the ligature did not separate before the 29th, (twenty-one days after its application). Nothing of any consequence occurred until the morning of the 11th October, when hemorrhage to the extent of a pint and a half took place from the wound in the groin. He fainted, and the bleeding ceased. By the next day he had rallied considerably; and a spring truss, so contrived that the pad should make constant and pretty considerable pressure upon the wound, was applied to the groin. This checked the bleeding, but he now began to complain of excruciating pain in the leg and foot, on the outside of which, just over the head of the metatarsal bone of the little toe, there was found a small ulcer, apparently the consequences of pressure. This was defended by means of dressings and a bandage. In the afternoon of the 18th, hemorrhage was again threatened; and at four A. M. of the 19th, twelve ounces of blood were lost from the groin, and on the morning of the 20th, a pint and a half.

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* This serves to show how seldom patients are aware of the existence of aneurism, until their attention is drawn to the tumour by some accidental circumstance. Notwithtanding this was the size of a walnut, and throbbing with very great force, the man was ignorant of its presence.

* "Mr. Brodie, we believe, found the coats of the vessel diseased."

From the 20th to the 30th the patient went on very well. No hemorrhage occurred; the pain in the foot was relieved, and he was recovering from the state of depression into which he had been thrown. On the morning of the 30th, however, a slight bleeding occurred, with occasional rigors; and, what is curious, although he was shivering, and complained of excessive cold, the temperature of the skin was up to 103° by the thermometer. He bled at intervals during the night, once distinctly from the lower and original wound; and on removing the pad next morning, a full jet of blood took place from the groin. In the afternoon there was another rigor; and in the night, so excruciating was the pain in the foot, and suffering from the pressure of the pad in the groin, that he threatened to tear off truss and dressings. To be brief, the foot now became of a tallowy white colour, and quite numb; and on the 2d of November, mortification or something very analogous to it, had taken place as high as the knee. The foot and leg were mottled over with patches of dull, livid red, but no vesications formed; in fact, the case more resembled dry gangrene than true sphacelus. The patient now sunk rapidly, and at eight P. M. expired.

Dissection.—The body was attenuated, but not so much so as one might have expected. The ligature in the groin, it was discovered, had been applied immediately below the giving off of the profunda, and at this point the vessel was fairly destroyed by ulceration. From this, to the site of the original operation in the thigh, both artery and vein were obliterated, and converted into a ligamentous, undistinguishable mass. The aneurismal tumour in the ham was reduced to the size of a small orange; it was solid, and the great vessels passing to and from it were obliterated, or at least filled with coagulum. The tumour in the other ham presented a good sample of incipient aneurism. There was the general thickening of the tunics, with the deposition of yellow, steatomatous matter betwixt them; whilst the inner and middle coats had evidently given way, forming an almond-shaped pouch, in which lay a little clot of coagulum. No other disease of any consequence was observable in the arteries.

It might, perhaps, have deserved consideration, whether, in this case, after the second hemorrhage, the limb ought not to have been amputated; but the patient, whose mind had suffered much from some family misfortunes, was desponding respecting himself from the beginning, was with difficulty persuaded to submit to the application of the second ligature, and positively refused to undergo any other operation afterwards.—*Roderick's Excrescence.*

We entertain no doubt, that the foregoing report is from the pen of Mr. Brodie; although, as a specimen of surgical knowledge, and of composition, it could be equalled by *any* hospital dresser, and surpassed by many. The interest which the case excited in the hospital, the misrepresentations for which it afforded the opportunity out of it, and the important practical questions that it involved; were good reasons for publishing it at the time of its occurrence, but not for keeping it back six months. We think, however, that excellent reasons might be found for the latter, as well as for the suppression of the clinical lecture delivered by Mr. Brodie, before the performance of the *second* operation. As this "eminent" individual has kindly attempted to rescue poor Roderick's feeble and stunted bantling from the painful death of inanition, by feeding it with some of his "valuable" lectures, he may, perhaps, if the wretched starveling should not die in the mean time, present to it, at last, this interesting discussion of important practical questions. We therefore, for the present, postpone our remarks on the clinical lecture.

Nothing is said of the patient's temperament, constitution, previous state of health, or habits of living, although the subsequent events of the case lead us immediately to inquiry on these points. Passing over the singular circumstances that the patient should have discovered this aneurism in his ham, when it had not attained the size of a nut; and that this tumour, less than a nut, should have caused the foot and ancle to be swollen and œdematous, we come to the strange notion that the increase of the aneurism was caused by the patient being "greatly harassed in mind and body:" of which singular position no proof is adduced. In the course of a bungling and confused description, Mr. Brodie says, that "the gracilis and sartorius (muscles) *seemed* to be stretched over" the tumour. What is a *seeming* to be stretched? Were they stretched, or were they not? The patient, at his admission, "was rather feverish and *irritable;*" and, at a subsequent period, there was "a good deal of fever and irritability." Which might have been better expressed, by saying, that the patient had "a good deal of fever and fever, and irritability and irritability." Was the irritability direct, reflected, or indirect? We see now, that Ben Travers has not migrated westward for nothing. If he has not transferred his practice, he has carried his doctrines of constitutional irritation to his new residence. The Hospital of Wonders is a most congenial soil for a plant of this kind.

But the practical points, as Mr. Brodie observes in the outset, are the most important in this case; and we soon come to an occurrence, which, though not necessarily fatal, led, in this instance, to the loss of life. Four ounces of fluid blood flowed from the wound on the twenty-eighth day after the artery had been tied. The bleeding was stopped by pressure in the groin. It recurred on the thirtieth day "to a greater extent;" when Mr. Brodie proceeded to tie the vessel higher up. A more unpromising attempt could not have been made; for the result of the prior operation showed clearly what was to be expected from tying the vessel again. Nothing could have justified it but the most urgent necessity; that is, continued dangerous hæmorrhage after all attempts to check it had failed. But the loss of blood here had been trifling, and the obvious measure of compression does not appear to have been tried. A graduated compress should have been placed over the wound, and the trunk of the artery, from the groin to the wound, should have been covered by another. These should have been bound firmly on (not *quite* so firmly as in the cases of poor Wheeler and Hammond) by a bandage from the toes to the groin. This is the treatment that would have been adopted in those hospitals of France and Germany, which are spoken of so contemptuously by the ignorant coxcombs of St. George's. Will it be believed, that Mr. Brodie thinks it would have been proper to amputate the thigh of this truly unfortunate patient! The opinion is distinctly stated in the last paragraph. The amputation must have been close to the body; and this terrible mutilation is coolly proposed, in consequence of a hæmorrhage, apparently not exceeding twelve ounces; and for which this scientific practitioner had not even tried the effect of simple compression! Anticipating a decided objection, on the part of the patient, to amputation, Mr. Brodie contented himself with tying the artery higher up. The result was what might have been anticipated: bleeding occurred on the thirty-third day, and took place at intervals, during the following three weeks, when the welcome stroke of death rescued this sufferer from the wards of St. George's. The mode of his exit is most curiously worded:—the foot "quite numb;" "mortification, or *something analogous* to it (what is that?) as high as the knee;" "the case more resembled dry gangrene than true sphacelus." The affected tone and absurdity of these expressions are of little consequence, in comparison with the errors of treatment.

Mr. Brodie applied his second ligature in a situation where failure was almost certain, even in an ordinary patient, and where it might have been predicted with the utmost confidence in such a case as this. In his clinical lecture, he said, that he should tie the trunk of the femoral artery *above* the origin of the profunda; and he says, in this report, that he "thought it advisable to tie the artery in the groin." It was found, however, after death, that the ligature "had been applied *immediately* BELOW the giving off of the profunda."

We do not know how far the region of the groin is held to extend at the HOSPITAL OF WONDERS, since this ligature, which Mr. Brodie calls "the ligature of the groin," must have been full two inches below Poupart's ligament!! But the anatomical knowledge, and the pathological skill of this eminent operator, shine forth most brilliantly in his selection of the particular spot for the ligature, as his surgical judgment was most unequivocally displayed in his hasty resort to so desperate a measure, when prevented from what he would have preferred, that is, amputation. English surgeons have boasted of their improvements in the surgery of the arteries; they have flattered themselves that their experimental and pathological researches had illustrated every point connected with the effects of ligatures, and fixed all the rules for their application. Jones has ably shown (in his Inquiry into the Process of Nature, in suppressing Hæmorrhage, &c.) how the operation of the ligature fails, when it is applied immediately beyond the origin of a collateral branch, the current of blood through such branch preventing the formation of a coagulum, that important auxiliary to the closure of the tied vessel. Hodgson has not failed to notice a point of such consequence, and to deduce the obvious practical caution. "The formation of a plug, however, is not a constant occurrence; and when an artery is tied close to a considerable ramification, it rarely takes place. Under such circumstances, the recent adhesion is liable to be forced asunder by the impulse of the circulating blood." "The possibility of hæmorrhage, from the cause which I have now mentioned, points out the impropriety of tying an artery close to the origin of an important ramification," pp. 210, 211.

In utter disregard of such plain rules, which a pupil of twelve months standing ought to be well acquainted with, Mr. Brodie, places his ligature on the femoral trunk, close to the origin of the profunda: thus selecting one of the very largest branches in the body, and the trunk in which the origin of such branch is the most easily determined, as if with the express view of rendering his blunder more conspicuous; of convincing all the world, either that he is unacquainted with this source of danger, or too bungling an operator to avoid it. Could our readers have believed that this persevering operator was not satisfied yet, and that he would have tried his luck a third time, we suppose in amputation at the hip-joint, or tying the external iliac, if the patient would have consented? "But the patient," says this mild and placid surgeon, "whose mind had suffered much from some family misfortunes, was desponding respecting himself from the beginning, (never had unfortunate wretch more reason for despair!) was, with difficulty, persuaded to submit to the application of the second ligature, and POSITIVELY REFUSED TO UNDERGO ANY OTHER OPERATION AFTERWARDS"!!! It is a pity that he did not come to this resolution at an earlier period.

The *dissection* is described in a style quite worthy of the previous history; "the body was attenuated." Three months residence in St. George's, and two such clawings and mawlings by the BATS of that place account well enough for this. We only wonder that he had not, long before, been "resolved into dew," or "vanished into thin air." The vessel where it had been tied, "was *fairly* destroyed by ulceration." Fairly! That we deny: foully, most foully. "Both artery and vein were obliterated, and converted into a ligamentous *undistinguishable* mass." Indeed! What genius, then, distinguished it? Or, perhaps, this great physiologist and lucid writer, has discovered the secret of describing "undistinguishable" masses. Let little Benjamin ask the Middlesex owl what effect this obliteration of the vein would produce on the parts below; whether it would cause "tallowy whiteness," a "numb" state, or "something very analogous to mortification." Let him also inquire of a brace of other owls, Jemmy Johnstone, and Five-pound Roderick, whether this obliteration proves that the vein was tied with the artery? "The great vessels passing to and from it (the aneurism) were obliterated, or, at least filled with coagulum." The great vessels! a whole bundle of them, no doubt. *Obliterated* vessels *filled* with coagulum! This admirable operator and clear writer, makes no distinction between obliteration of a vessel and obliteration of its cavity. Could the rawest, even of the St. George's tyros, surpass this specimen of carelessness and confusion, which is thus complacently put forth by their teacher to prove the "partiality and inaccuracy of THE LANCET?" This rare opportunity of determining several interesting points respecting the state of the swelling, at such a period, both as to the containing and contained parts, seems to have been wholly neglected. An incipient aneurismal tumour in the other ham, of which a minute dissection would have been most interesting in determining the controverted questions about the early state of this disease, was passed over with nearly as little ceremony. Where the immediate seat of disease, in a case presenting so many points of the greatest interest was thus superficially examined, we are prepared for the total neglect of all other investigations. The condition of the part and leg, which was apparently very curious, was not inquired into; the abdominal and thoracic viscera were not inspected, much less the contents of the head; and not a thought seems to have been bestowed on the arterial system generally.

If our readers should wonder why we take so much pains in exposing a piece of ignorance and folly, we answer, that we have selected this case as a fair specimen of the anatomical and pathological accuracy, the surgical judgment, and the operative skill of a contemptible knot, who pride themselves on their birth, science, and purity—fancy themselves at the head of the profession; and, in conjunction with the SCOTCH DUBS, or JEMMIES and RODERICKS, appear to look down with supreme contempt on the body of GENERAL PRACTITIONERS. Jemmy may deny this in his *fas.;* and Roderick through the mouth of Sir James Scarlett: but it will avail them nothing. We have the fatal truth from their own pens. They have *written themselves down.*

Mr. Brodie will surely not be deemed an unfavourable specimen of the BATS; and we have inserted his production at full length, that he may speak for himself. We shall conclude by reminding him of two circumstances in the natural history of these crawling, wriggling, and unsightly creatures, which it will be well worth his while to ponder most attentively. BATS always commence their flight from an eminence (which they frequently ga in by a filthy and tortuous course); starting on the wing with this advantage, they may go on very well, but once fairly bring them to the ground, they rise no more!

EXCERPTA QUÆDAM EX EPISTOLIS AMICORUM.

We have always thought that the dexterity of the Surgeon, and the judicious management of the patient, before and after the operation, were circumstances of far more consequence in Lithotomy, than the particular kind or form of instrument; and we have already illustrated this point, by referring to the greater success of Mr. Green with the gorget, than that of Mr. Key with the straight staff and scalpel. We have since made inquiry into the result of the operations performed at St. Bartholomew's Hospital, by Mr. Lawrence, who has employed almost invariably Blizard's knife. We find that Mr. Lawrence has lost only one patient out of between forty-five and fifty cases, and that the fatal case was one of a miserable, emaciated being, so worn out by long suffering and other illness, that success was next to an impossibility. Mr. J. Dunn, of Scarborough, has favoured us with an account of a case, in which he recently employed the straight staff, in an adult, with complete satisfaction and success. The length of the calculus was two inches and a quarter, short diameter one inch and a half; weight, two ounces within four grains, and of the mulberry kind. The stone was extracted without difficulty, and the patient speedily recovered.

Mr. Field, of Rotherhithe, has communicated the particulars of a case of fungoid disease of the mamma, in which amputation was performed. The patient was 40 years of age, had borne children, and had not ceased to menstruate: her general health was tolerably good. The breast had attained an enormous size, measuring twenty nine inches in circumference at its base, and, after removal, was found to weigh upwards of *ten pounds*. The swelling had existed eleven years, but, during the last eighteen months only, had assumed a malignant aspect. The operation was performed on the 7th of November, and on the 3d of January, the date of Mr. Field's communication, the wound had nearly healed, and the patient was in good health.

Taking into consideration the lengthened period in which the swelling of the breast had been forming, and contrasting this with its rapid progress at last, it would seem that the disease was of a simple kind in the first instance, (chronic enlargement,) and that, subsequently taking on a specific action, it assumed a malignant character.

The management of the case is highly creditable to Mr. Field.

Mr. Merry, of Hunter Street, Brunswick Square, has furnished us with the notes of a fatal case of tetanus.

The subject of the disease was a thin man, 30 years of age, and the symptoms were manifested on the evening of the second day, after he had been crushed between a wall and the wheel of a cart, but without any palpable injury. When first seen by Mr. Merry, on the 11th of September, there was no affection of the muscular system, except about the jaw: the pulse was upwards of 100, hard, and contracted. Blood was taken from the arm to the amount of twenty-four ounces, when syncope was induced; doses of jalap and calomel were exhibited, until several evacuations, of an offensive nature, were obtained. On the same evening, thirty ounces of blood were abstracted, and with so much relief, that the tongue admitted of protrusion to the extent of an inch and a half. Seven grains of calomel, with half a grain of opium, were now directed to be taken every four hours. On the following day the symptoms were greatly aggravated, the disease having, in fact, become general; two grains of superacetate of lead, and a like quantity of opium, were given every three hours, after emptying the bowels by means of purgative enemata. In addition, two drachms of mercurial ointment were rubbed over the spine every two hours. In the evening, sixteen ounces of blood were taken from the arm, a tobacco injection administered, and also clysters of laudanum. The disease, however, held an uncontrolled course, and the patient died early on the morning of the 13th.

An examination was made 36 hours after death. There was not the least trace of disease observable in the brain or its coverings: the spinal envelopes were unusually vascular, but this, Mr. Merry thinks, might have arisen from their dependent situation. A portion of the ileum, about six inches from its termination, was of a deep purple colour, and its mucous surface was studded with minute specks: the whole of the intestines were of a darkish colour, and the mesenteric glands were much enlarged, although apparently not altered in structure.

The principal points of interest in this case are, its rapidly fatal termination, and the singular fact of the disease occurring after a contusion of the body, without any wound or manifest injury. It proves also, unfortunately, of how little avail our remedial means are in this disease, and the dissection, as heretofore, throws no light on the *ratio symptomatum*.

Mr. W. Jones, of Lutterworth, has transmitted the details of a case of fracture of the skull, exceedingly interesting in a *moral*, as well as *surgical* point of view. The patient, according to Mr. Jones's statement, becoming "much cleverer" than he was before the accident.

He was a lad 17 years of age, and the accident occurred from the wheel of a wagon having passed over the head. The right parietal and temporal bones were much fractured, the integuments greatly torn, and part of the substance of the brain forced out. There were all the symptoms of compression, which ceased on the removal of several portions of bone by means of the elevator: five or six pieces had been driven into the substance of the brain. Under strict antiphlogistic treatment, the lad entirely recovered, and Mr. Jones remarks, that he "had lost sight of him" for five or six years, when he accidentally met the mother, who informed Mr. Jones, that, previously to his taking out a part of her son's brains, the lad was never free from headach, and that he was so stupid, he could scarcely recollect any thing; but that since the operation he had been entirely free from headach, and had become "*as sharp as a briar*!"

It would seem from this case, that a redundancy of brain is equally unfavourable to the development of mental manifestations as a lack of it. We almost fear, that in making this case public, some numskull, fancying he has a superfluity of cerebral substance, may be induced to try the experiment of crushing his cranium.

Mr. Jones also relates an instance of successful recovery from severe wound of the foot by an axe, in which the four innermost metatarsal bones were divided, as well as all the soft parts; the tendons and metatarsal bone of the little toe being, in fact, the only parts remaining entire. Mr. Jones affirms that the patient was cured, and has perfect use of the foot.

A Correspondent, who subscribes himself "F.," and dates from St. Thomas's Hospital, suggests, that in the cases of suffocation from foul air, reported in the 227th Number of this Journal, the chloride of lime would have been efficacious. He observes, that M. Labarraque has employed it most successfully in cases of asphyxia, arising from the foul air of sewers, and that the mode in which he administered it, was "by bathing the nostrils of the patient, and inducing the inspiration of the chlorine gas in solution; to which may be safely added, a warm injection of chloride of soda."

In reply to "T. A.," who writes on the subject of Dr. James Johnstone's inconsistencies, we may observe, that if we were to encumber our pages with accounts of that individual's absurdities, we must exclude all other matter. T. A. may rest assured, that the editor of the late Quarterly—to adopt a familiar phrase, "is on his last legs." The appearance of *vesiculæ* (*fasciculi* the poor man calls them) is a clear indication of gangrene having commenced, and considered in connexion with the feeble state of his *circulation*, is undoubtedly the precursor of a speedy termination. His "dying speech and confession" have been already privately circulated amongst his friends. Peace to his manes.

The observations of "H. R. S." on the cellular tissue are correct, but they are common place,—"*lippis et tonsoribus notum.*"

Dr. Simpson has adduced some remarks on the treatment of wounded arteries, in reference to Mr. Green's clinical observations upon the subject, published in No. 222 of this Journal. Dr. Simpson is of opinion, that the operation of tying the main arterial trunk of a limb is objectionable, and thinks that pressure upon the bleeding vessel "is the best, and most advisable practice." In illustration, he mentions the case of a boy who wounded the posterior tibial artery with a sickle, and where the hæmorrhage was readily restrained by pressure. Dr. Simpson recommends sponge as a compress, "using it as *dry* as possible," on which circumstance he places much stress, observing, that if a piece of *wet* sponge be laid upon the bleeding vessel, a capillary action goes on.

A Correspondent, who writes from North Wales, and subscribes himself *Iorwerth*, relates an instructive case of extensive compound fracture of the cranium, unattended by symptoms of compression. The operation of trephining was *not* had recourse to, and the patient did well. Our correspondent commences with some prefatory remarks on two cases of a similar nature, which occurred at St. Thomas's Hospital under Mr. Travers, an account of which were published in The Lancet of Dec. 22. It will be remembered, that the rule expressed on this point by Sir A. Cooper, viz. that in *all* cases of compound fracture of the skull, with depression, the bone should be elevated, was acted upon by Mr. Travers, and the patients died. The case, with the comments, would have been valuable, had a real name been attached to the paper. We must here, once for all, inform our friends, that we will not insert papers, unless the name and residence of the correspondent be affixed.

On the subject of midwifery, we have the following communications:—

Mr. George King, of Bath, reports a case which is strikingly illustrative of the powers of the ergot of rye. The patient had a tedious labour, attended with profuse flooding, prior to the expulsion of the fœtus: pulsation could not be distinguished in the chord, and the uterus had ceased to contract, when an infusion of the ergot of rye was administered. In about an hour and an half the uterus began to act, and the woman was speedily delivered of a dead child.

The paper entitled "Case exemplifying the insufficiency of Midwives," if true, is worthy of notice, but, as it is anonymous, we cannot give it a place.

Mr. Walter James, of West Bromwich, in a paper on "the employment of *internal* pressure in uterine hæmorrhage," relates an interesting case, indirectly confirming the utility of this plan of treatment, and, as he conceives, militating strongly against the practice taught by Dr. D. Davis, of plugging the vagina. In the case related by Mr. James, (abortion in the sixth month,) the fœtus having been expelled, a natural plug was formed by the placenta, in the vagina; yet, internal hæmorrhage had gone on to such an extent, that the uterus was was distended to the full size, it had attained previously to the miscarriage. Mr. James is of opinion, that uterine hæmorrhage may be suppressed by *internal* compression of the abdominal aorta through the uterus; he asserts that this is readily practicable with the hand; giving the particulars of a case in which he had recourse to this plan, successfully.

The Dressers v. *the Demonstrators of St. Thomas's Hospital.*—On the subject of the schism existing between these parties, with respect to the right of conducting post-mortem examinations, we have at least a dozen letters lying before us. It seems that it has been, from time immemorial, the custom at this Hospital, that the dressers of the respective surgeons should conduct the post-mortem examinations: of late, however, under the *pretext* of benefitting the students, by conducting the inspections with more regularity, the right has been transferred to the demonstrators, Mr. Macmurdo and Mr. Solly.

We are decidedly of opinion, that this is an act of gross injustice towards the dressers, and we are heartily glad to find, that they have treated the affair in a spirited manner. The plea, in virtue of which the change has taken place, is mere *bagatelle*; for we know too well the nature of *treasury* influence, to suppose that anxiety for the welfare of the pupil has had any share in determining the arrangement. We would ask—who are so properly qualified for undertaking the post-mortem examination, as the persons who have had charge of the case during life, and have watched the disease throughout its course? Is it to be credited, that the dressers of St. Thomas's are, as a Mr. T. Smith affirms in a letter on this subject, incompetent to the examination of a body? We deny the assertion: a solitary jolterhead or two, we admit, may perchance exist, the laughing-stocks of the pupils, and the disgrace of the surgeon who has accepted them to fill an important situation. Again, if the interests of the pupil are held so much at heart, how does it happen that the surgeons stand as mere ciphers in this affair? We would say, in conclusion on this subject,—Let the post-mortem examinations be regularly conducted, and due notice of them be given to the pupils, who should be provided with ample accommodation for viewing the parts; and let a dresser be required, in the examination of each case, to demonstrate the morbid appearances to the assembled students.

There certainly have been, we must confess, great irregularities in the manner of carrying on the post-mortem inspections at this Hospital, but we believe that it has only arisen from a want of some determinate and fixed rules. The dressers are fully competent to the task, and are willing to fall in with any arrangement which may be considered beneficial to their fellow students.

The "*Pupil of St. George's Hospital*" must have perceived, since his letter was written, that we have done ample justice to Mr. Keate's "bombastic nonsense," in Macleod's Excrescence. He will write no more letters about The Lancet; *hard swearing*, it would seem, is not confined to the purlieus of the Old Bailey.

With respect to Mr. Keate's conduct towards a pupil, whom he thought proper to suspect of being our reporter, we are glad to find that the gentleman in question spiritedly compelled him to apologise.

[Other Correspondents in our next.]

THE LANCET.

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LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY,
DELIVERED AT GUY'S HOSPITAL BY
DR. BLUNDELL.

Lecture XX.

Management of Floodings in the Latter Months.

Those large eruptions of blood, Gentlemen, which are taking place from the uterus during the latter months of pregnancy, I am accustomed to divide into *three* kinds; those, I mean, in which the floodings are connected with the situation or implantation of the placenta, over the mouth of the womb; those floodings, again, in which you have large quantities of blood coming away from the uterus, without the placenta being so situated; and, lastly, those large discharges from the uterine cavities which follow the birth of the fœtus, and either precede, or come after, the abstraction of the placenta. Now, of these three species of floodings, we shall treat in order.

Nature has wisely so ordained it, that, in general, the placenta does not cohere to the mouth and neck of the womb, but is attached either to the body of the uterus, or its fundus. It does, however, occasionally happen, and dangerously both to the mother and the fœtus, that the placenta is implanted over the os uteri, so as either to lie over it completely, or else to give it a partial covering, one half of the os uteri being closed in by the membranes, as the other half is by means of this fleshy mass, the placenta. When the placenta is, in this way, partially implanted over the os uteri, or covering it completely, we find the patient becomes liable to large and dangerous eruptions of blood from the womb; these eruptions taking place, earlier or later, during the latter periods of gestation, but generally, I think, about the seventh or eighth month, and without any obvious cause. The patient, perhaps, is lying asleep in bed, or, it may be, she is quietly occupied with her needle, when suddenly the blood bursts from the uterus, asphyxia speedily following, and sometimes, though rarely, death itself. Sooner or later, with more or less severity, the pains make their beginning; and it is remarkable, that when the pains of parturition ultimately supervene, every effort of the uterus is sometimes accompanied with a gush of blood in varying quantity. Of these hæmorrhages, the reason usually assigned is the following: during the first and middle months, it seems the ovum is confined merely to the body of the womb, the neck forming no part of the general receptacle in which it lodges. The placenta, therefore, placed during these months over the neck of the uterus, lies undisturbed; but during the two or three months, in the end of pregnancy, the cervix uteri gradually dilates itself, so as to form a part of the chamber tenanted by the fœtus; and the consequence is, that the neck of the womb dilating to receive the ovum, while the placenta is not equally expanded, a movement of one surface over the other, slow, indeed, but certain, is produced. Now, in consequence of this movement of surface upon surface, there is a tearing of those vessels, numerous and large, which pass from the uterus to the placenta; the blood, of consequence, rushing from the uterus largely, and without visible cause, the discharge depending on nothing extrinsic, but upon those internal changes which must necessarily take place. Again: when the efforts of parturition come on, the entire ovum is pushed down towards the vagina, as in ordinary labours—the placenta, which lies over the os uteri, of course descending foremost. With every effort of parturition, therefore, the placenta comes forward more and more, and becoming, of consequence, more and more detached from the uterine surface; additional vessels are successively laid open, each disclosure being accompanied with a further discharge of blood. Thus, in these floodings, we have not only, at first, a spontaneous eruption of the blood, but sometimes also a return of the gushes with the pains, both of them symptoms very characteristic of the disease.

Such, then, is a brief summary of the more important symptoms which characterise this disease: the placenta covering the mouth of the womb, partially or completely, large hæmorrhages, dangerous both to the mother and child, are apt to occur; these floodings often arise spontaneously, and without obvious cause, in the latter months; and when the pains supervene, the ovum begins to descend, and, at this time, the gushes of blood, instead of being diminished, are apt to return with every effort. After all, however, these symptoms merely create a suspicion of the real nature of the case. The only certain mode of ascertaining that the placenta covers the disc of the os uteri, is by examination very carefully instituted; and wherever this situation of the placenta is suspected, examination should be had recourse to, as soon as it may be made. Performing this operation carefully, we find a fleshy mass lying over the mouth of the womb, covering it completely or partially; and if we are in the habit of feeling the placenta, (and I would recommend you all, in commencing practice, to acquire a knowledge of its tangible properties, by handling every placenta which may come in your way,) we may readily enough determine on examination, whether that fleshy mass be, or be not, the placenta. If, however, being inexperienced, you suspect that this reputed placenta may, in reality, be nothing more than a clot of blood, taking a small portion of it between your fingers, you had better pluck it away; making an examination of it afterwards by putting it into pure water, when the placentar characteristics may be easily discriminated from those of a clot of blood. In the outset of your practice, take every opportnnity of contrasting the one with the other; readiness of discrimination may be of use to you here. To conclude, then. When, in the seventh or eighth months, you find a large discharge of blood occurring spontaneously,—and when, after these large discharges, gushes are found to recur with every pain, you may venture to surmise, from these symptoms, that the placenta is lying over the os uteri; that such is certainly its situation, can be made out by examination only, and the sooner it is instituted the better.

But to proceed, asphyxia not forbidding, if you are called to a case in which the placenta is lying over the mouth of the womb, provided the woman be in a state nearly approaching to asphyxia, and provided, too, as generally happens, the bleeding is arrested, let her lie quiet, forbearing to disturb the genitals by manual operation, for I repeat, if you hastily introduce your hand into the uterus at this time, you perhaps produce a renewal of the discharge, which would most probably destroy the patient.

If again you are called to a case in which, the placenta lying over the os uteri, there is not, however, this great reduction of strength, so that the woman does not lie, as it were, half dead, remember the general rule is, that you should introduce your hand into the uterus as soon as you safely may, and that you should abstract the child by the operation of turning. On this point there can, I presume, be no difference of opinion among competent judges, at least in the present state of knowledge; so that the mind is not here, as sometimes, distracted or disturbed among a variety of practices, all of which may have nearly equal claims to its adoption. Thus, then, lies the general rule: provided you find the placenta lying over the disk of the os uteri, so as to cover it partially or completely, the hand is to be introduced into the uterus, and the child is to be abstracted by turning, without the delay of a moment, *as soon as the operation may be performed with safety.*

Now the hand may be safely introduced, or, at least, it may be introduced with that degree of safety which justifies the operation, provided the softer parts are thoroughly relaxed, which, in these cases, they almost always are, in cousequence of the bleeding; provided, further, the os uteri is beginning to open itself a little; becoming, for instance, broad as a half crown, (for the urgency of the danger would justify our not awaiting a wider dilatation,) and provided, lastly, the woman be *not in such a state of asphyxia, that if you disturb the parts, so as to cause the discharge of an additional cupful of blood, dissolution may be expected to ensue.* Under such conditions, therefore, the sooner you operate the better. But, on the other hand, if the os uteri be closed, if the softer parts be rigid, and if the *patient lie in a state approaching to asphyxia,* WAIT. Wait, in the first place, where the patient is in a state approaching to asphyxia, proceeding to the operation when the patient rallies. Again, where there is a rigidity of the softer parts, —of the os uteri, I mean, or vagina,—wait, proceeding to the delivery as soon as the laxity of the parts will allow. In thirty, twenty, nay, sometimes, in ten minutes, or less, a relaxation will sometimes suddenly occur; remain, therefore, with the patient, and let your examinations, though gentle and prudent, be frequent, unless asphyxia forbid. That you ought always to wait, because the disc of the os uteri is smaller than a half-crown piece, I am not sure. When experienced, dexterous, and cautious, you may sometimes dilate and deliver notwithstanding; but keep the fear of laceration always before your eyes, and while young in practice, beware. In the general, I may remark, that you should remain at the bed side; never quitting the patient till she is delivered; be watchful too—be vigilant:

the waves are high and the winds are abroad —while you are sleeping, the bark is sinking. Save, or your patients perish. By turning, it is, that the fœtus is to be abstracted in these cases; and this may be accomplished in different ways. The placenta completely covering the mouth of the uterus, in the first place you may carry your hand through this aperture, at the same time making an opening through the placenta, so as to penetrate both simultaneously, enlarging the opening sufficiently to admit the introduction of the hand into the uterine cavity, where you may lay hold of the child's feet, and bring it away by the operation of turning. Or, again, and this is the second method of operating, passing the os uteri, you may advance the hand between the placenta and the uterus, until, with as little disturbance of the parts as may be, you reach the edge of the placenta, where the cyst, containing the liquor amnii (a cyst of water) may be felt. This point accomplished, you enter the cavity of the ovum by lacerating the membranes, advancing afterwards to the feet of the child, and, as before, abstracting it by turning. Now, like all other things, these two obstetric practices have both their advantages and their evils; for, as it was wisely observed by the ancients, every thing has two handles, though we commonly see but one. If you enter the uterus by rupturing the membranes, I think, on the whole, there may be a fairer change of preserving the fœtus; I say there may be, for of this I am not certain. But, probably, under this mode of procedure, in consequence of the detachment of the placenta, a larger discharge of blood during the operation will occur; while, on the other hand, if you dexterously enter through the os uteri, at the same time perforating the substance of the placenta, you may, perhaps, detach the placenta less extensively from the surface of the uterus, and secure the chance of a smaller discharge of blood, though the laceration of the capillaries of the umbilical vessels, occasioned by the disruption of the placenta, may possibly endanger the child. More experience, however, is wanting in these matters; at present we must, in speaking of them, interject those dubitatives, which form an essential component of most medical opinions. For myself, I make my election between the two modes of performing the operation, upon the following principle:—If, arriving early, I find the patient is not much reduced by bleeding, I do not scruple to enter through the membranes, having, I presume, a fairer chance of saving the child in this manner, and, under the conditions given, not being afraid of the loss of an additional cupful of blood; but, as frequently happens in placentar cases, the woman is so reduced, that the loss of a few additional ounces of blood may sink her, then I prefer entering the cavity of the uterus by penetrating the placenta, because the bleeding may be less, and the security of the woman may be greater; and, in British midwifery, the safety of the mother, in every point, is made paramount to every other consideration whatever.

Here then is, in brief, a statement of those peculiar practices, which these very important and very dangerous flooding cases, of all others the most important and the most dangerous, are requiring. When the placenta is implanted over the os uteri, so as to cover the disc of it partially or completely, the first office of the accoucheur is to ascertain the precise situation of the placenta—certainly known from careful examination only —to be suspected, however, when, in the seventh or eighth month, you find large bleedings without obvious cause, while gushes of blood accompany every effort of the uterus. This point ascertained, the practice to be adopted is the following:—If the woman seem to be at the point of death, and the hæmorrhage be stopped, you must not disturb the genital parts at that time, even by making examination, but, without neglecting other important practices, you must wait till she dies or rallies, operating if she recover herself, provided the bleeding return and require it. If, on the other hand, the patient is not in this sinking condition, without the needless delay of a minute, you are to deliver as soon as you safely may, and you may with that degree of safety which in such emergency justifies an operation, provided there is not a state of asphyxia immediately approaching, and provided the softer parts are tolerably relaxed, and the os uteri is a little open. If there be a rigidity of the softer parts, as sometimes, especially when you are summoned to the case early, by no means leave the patient, even though you may not be able to introduce the hand, but make your examination every five or ten minutes, and introduce your hand as soon as the parts may admit. In performing the operation, if anxious to save every drop of blood, perforate the placenta, afterwards, as you enter the ovum, dilating together the os uteri and the aperture in this viscus; but if the woman be strong, you may then, in general, enter by passing between the womb and ovum to the edge of the placenta, rupturing the membranes and turning the fœtus as before explained. When the woman cannot be delivered there may be an advaniage in discharging the liquor. This might sometimes be done by puncturing the placenta, care being taken not to detach it in so doing. When the membranes are felt over the os uteri, the placenta giving it but a partial covering, the waters, under such circumstances, may be easily discharged. These practices deserve consideration. From a very sensible friend, Mr. Greenwood, of Horslydown, I first learnt them.

The grand errors which you are likely to commit in cases of this kind, are the following:—You may begin your operations too early, when the softer parts are rigid, and, by forcing up the hand, you may, I conceive, bruise and tear and destroy the patient, though, on the whole, it must be admitted that of this there is not much danger, as in placentar cases the parts are generally relaxed. Again, in these cases you may lose the patient by delaying the delivery too long, for you may wait till the woman is so much reduced, that she dies either before the operation can be performed, or as soon as the fœtus is taken away. By the expectation of pains, you may also be misguided—misled by that *silly* rule which you will recollect I formerly denounced. The placenta lying over the mouth of the womb, you may have pains, it is true, but the floodings may be so copious that the womb becomes, in a great manner, paralysed, and while you are waiting for the pains the patient may die. Violence you may commit in performing the operation—atrocious violence—in obstetrics, the sin which cannot be forgiven. If you are too urgent in forcing the hand into the vagina—if you are too rough in dilating the os uteri,—and this is almost the only case in which it is allowable to dilate the os uteri,—look at these preparations, and mark the effects. The dangers of asphyxia I have already pointed out. Sitting down at the bed side, without the pause of reflection, you may proceed headlong to perform the operation, when the patient is so reduced already, that the loss of two or three ounces more of blood will sink her; and what is the result of this? why, before you have got your hand into the uterine cavity, jactitation, heaving, gasping, and intolerable oppression, may seize on the patient, and, perhaps, before you can deliver the woman, she perishes.

I shall now send you round some demonstrative preparations. The preparation here presented to you illustrates two things: you see, first, the natural situation of the placenta, which coheres to the body of the uterus; secondly, you see the neck of the womb, forming a sort of appendix to the body, as yet not dilated so as to constitute a part of the general receptacle for the ovum. This fœtus is about five months old. The dilatation of the cervix uteri will occasion spontaneous bleeding.

In the next preparation, you may observe the lower part of the uterus, consisting of the neck and mouth; over the os uteri the placenta is placed. That woman was not delivered, because she had no pains; the practitioner was an admirer of the *silly* rule; the consequence was her death, and this preparation. Mr. Randall, a very intelligent practitioner, made me a present of the parts. In the practice which we have reprobated, he had no share.

Here is a preparation in which the os uteri is beginning to open; the neck of the uterus forming a part of the general receptacle for the fœtus. Now it is when the cervix uteri makes its transit from the undilated to the dilated condition, in the seventh or eighth month, that the detachment of the placenta and the bleeding is produced. In the preparation I now show you, you see the ovum with its placenta perforated, and suspended upon a bladder passed through the aperture. These are the secundines of a woman whom I delivered, the placenta lying over the mouth of the uterus; a hole was made through the placenta, and gradually, by dilating simultaneously the os uteri and the placenta, room was obtained for the introduction of the hand.

Of latter Flooding, in which the Placenta is not situated over the mouth of the Womb.

It frequently happens, Gentlemen, in the latter months of pregnancy, that you have large eruptions of blood from the uterus, though the placenta be not implanted over the mouth of the uterus; and this absence of the placenta from the mouth of the uterus is to be ascertained, in the more dubious cases, solely by very careful examination. That the flooding is not occasioned by the situation of the placenta over the mouth of the womb, may be reasonably suspected when the bleeding is not spontaneous, but clearly referrible to some exciting cause, a fright or a fall, for example, though these eruptions may sometimes occur without being preceded by any obvious accident to which they may be attributed. That the flooding is independent of the situation of the placenta over the os uteri may, too, be shown in some cases by the freedom of the patient from those large gushes of blood during the pains, so frequently occurring when the placenta is implanted over the mouth of the womb. These diagnostics, however, are presumptive merely; understand, clearly, that the only certain mode of deciding whether the placenta is or not lying over the mouth of the os uteri, is by careful examination.

Under various forms it is, that these floodings manifest themselves, when the placenta is not deposited upon the mouth of the womb. In the seventh or eighth month, for example, the patient may die suddenly, with symptoms very similar to those of ruptured aneurism; and on laying open the body after death, two or three pints of blood may be discovered within the cavity of the uterus, and this, too, although there have been no external bleeding. On this variety of flooding, however, I forbear to dwell; it is of rare occurrence, and, in the present condition of knowledge, scarcely admits a remedy.

In the latter months, when the placenta is not lying over the mouth of the womb, floodings of a different kind, more frequent though not common, are found to occur. Perhaps the woman is in strong labour, and the liquor amnii has been discharged, and the head of the child is descended into the cavity of the pelvis, and a sudden eruption of blood takes place in the middle of the labour. In cases of this kind, if the discharge is NOT very abundant, and the head of the fœtus is not advancing with unusual tardiness, the less you interfere the better. Puzos, a practitioner of Paris, used (as I am informed) to recommend the urging forward of the pains by making pressure on the os uteri, perinæum, and back of the vagina, which, as he imagined, had the effect of stimulating the uterus and of multiplying the efforts. Of this practice I have had but small experience; contusions would be the result of a rough administration of it. If it really possess the power imputed, and effectively accelerate the birth of the fœtus, it would, with due gentleness and caution, be well worth a trial in the more copious floodings of this kind; but, after all, I incline to think that other practices may be more advantageously adopted, with a view of stimulating the efforts of the uterus; and of these it is my design to treat at large hereafter, when on the subject of lingering labour. The ergot appears to be especially indicated. If, again, in the middle of the labour the bleeding takes place, and that too in quantity which is dangerous; should the head be above the brim, you must introduce the hand, and bring the fœtus away by the operation of turning; but should the head be below the brim of the pelvis, you may introduce a lever, or a pair of forceps, abstracting the fœtus in that manner. So that the practice here is very simple; so long as the discharge is not dangerous, it is unnecessary to interfere actively with your manual practice, but if the discharge is so abundant that life seems to be thereby endangered, unless, as before explained, asphyxia forbid, manual operations become necessary; if the head of the child be below the brim, the lever or forceps may be used; if it be above the brim of the pelvis, the hand must be introduced into the uterus, and the child must be abstracted by the operation of turning, already considered at large; the evacuation of the uterus in these cases being the only effectual mode of putting a stop to the discharge.

But to proceed to the next variety: If engaged in a large consultation practice, as it is called sometimes, and, indeed, not uncommonly, you will meet with flooding cases where the placenta is not placed over the mouth of the womb, and where the labour, perhaps, is not as yet begun, the patient being attacked with copious bleeding, at a time when the membranes are unbroken, and when the os uteri is wholly or in great measure closed. Now in cases of this kind, if the discharge be unattended with danger, you need not actively or manually interfere. Let the patient lie a-bed—let her be kept cool and quiet; if there be a slight fainting, let it be encouraged; and refrigerants may be of use; and turpentine and lead may be given; and cold may be applied topically; in a word, to check the bleeding, you may have recourse to all the various practices already recommended, and as yet, I trust, not wholly forgotten. If, however, as not infrequently happens in those bleedings, you are alarmed for the safety of the patient, you may then be justified in having recourse to manual practices; and if, then, the placenta is not upon the mouth of the uterus, and if the liquor have not as yet been discharged, then it seems to be agreed that the preference is to be given to that beautiful operation, which consists merely in the rupturing of the membranes, and the discharge of the liquor amnii. For this purpose, the hæmorrhage continuing, pass a finger or two to the membranes, then take a female sound, (if bluntly pointed, all the better,) and, carrying this through the membranes, tear them a little, so as to discharge the water. Rigby, who first recommended the practice in this country, and I who has all the merit of originality, tells us, I think, that in as many as 60 cases, he found this operation sufficient to arrest the discharge, or, at all events, to diminish it so much, as to secure the patient from danger. Merriman, in his very excellent Synopsis on Midwifery, states, that in nearly thirty cases of uterine bleeding in the after months, he found this operation alone sufficient effectually to check the discharge. Now the danger of the cases considered, this success is splendid. Nor have I in my own practice found reason to doubt the efficacy of the remedy. Your practice, therefore, lies here within a very narrow compass, easily administered, efficaciously operative. The placenta not lying over the mouth of the womb, and the os uteri being shut, provided the discharge be not very large and dangerous, you do not interfere with the membranes, but wait, at least for a time, to see whether the bleeding will not cease of itself; but if the discharge continues, so that you are alarmed for the safety of your patient, even then you ought not, without reflection, to thrust your hand into the uterus; for, in general, it is sufficient merely to rupture the membranes; an operation, than which none in midwifery is more easy, and in this way discharging the fluid of the ovum, you more or less completely arrest the discharge. The operation is beautiful—simple, as it is effectual.

The placenta not lying over the os uteri, it now and then happens, that, notwithstanding the discharge of the liquor amnii, the flooding still continues. Now, in cases of this kind, provided the patient's life appear to be in danger, the only remaining resource is, to bring away the child by the operation of turning; for of the remaining means for arresting the bleeding, the most powerful is the thorough evacuation of the uterus. If the softer parts are rigid, if the os uteri is shut and unyielding, if the patient is in a state approaching to asphyxia, so that it is necessary to wait till she rally, you must refrain from interfering; remain in the house—abide in the bed-chamber; be patient—be vigilant; and when your patient has rallied somewhat, make an examination, to know whether the hand can yet be introduced with safety; and if from the laxity of the softer parts, and the dilatation of the uterine mouth, it seem evident that turning may be safely executed, let the hand without delay be carried into the cavity of the uterus, for the sooner the fœtus is abstracted the better.

The following are the principal errors which you are apt to commit in the management of those floodings in which the placenta is not lying over the mouth of the uterus, and they well deserve a little consideration. The neglecting to ascertain whether the placenta is, or not, lying over the mouth of the womb, is a capital fault, for your whole practice must turn upon that knowledge; if the placenta is lying over the mouth of the womb, one kind of practice becomes proper; if it is not so situated, another. The trusting too much to medicinal treatment, to the exclusion of manual interference, is another great error in the management of the latter floodings. In the general, as I have observed on preceding occasions, the best accoucheurs are those who interfere the least with the fingers or hand; but if there be an exception to that rule, that exception lies in the management of these flooding cases of the latter months, where, owing to the danger arising from the large discharges of blood, practices prompt and efficacious are peremptorily required. Denman, a cautious and experienced practitioner, remarks, I think, somewhere, that if we are to err in those cases, we ought rather to err on the side of promptitude than procrastination; adding, if I remember right, that it is rather a sign of wisdom than of officiousness, to show a readiness in these cases to discharge the liquor, or to deliver by the hand. Again: if you have not seen much of flooding cases, you are liable to be alarmed at the quantity of blood that is discharged, being induced, of consequence, to carry your hand into the uterus, when, perhaps, it would have been a better practice to have confided the suppression of the bleeding to the rupture of the membranes, an operation at once safer and more easy. Further, the delivery of patients in a hurry is a great error; it is more than an error, it is a crime. Into this crime, in unguarded hour, you may be seduced, if you have delayed too long the delivery, when really required; anxious to save your reputation and your patient, you accelerate, you bruise, you tear, you destroy. I now repeat what I observed once before: in obstetrics, a thrust of the hand into the uterus may prove as fatal, and will generally produce a more extensive wound, than the thrust of a bayonet. The waiting for pains is an error which you may commit; on this I dwelt in a preceding lecture. You have not forgotten the silly rule; where there are large floodings, the womb may be paralysed; nor should you, therefore, if symptoms require it, be deterred from manual interference, merely because the pains are wanting. The absence of pains, if it proves anything, rather proves the necessity of obstetric assistance, because it proves that the natural efforts are inadequate to the expulsion of the fœtus.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

LECTURE XXX.

On the Chloride, Nitrate, Sulphate, Phosphate, and Carbonate of Lime.

At the conclusion of the former lecture, I briefly explained the formation of the *chloride of calcium*, which, I stated, was produced by heating *lime* with chlorine, by which process its oxygen is evolved, and the chlorine unites with the metallic base of the lime, (calcium,) to form chloride of calcium, and I gave you my reasons for considering this compound as distinct from muriate of lime.

Chloride of Lime, or, Oxymuriate of Lime.—Now, if lime be exposed to chlorine at a *common* temperature, the chlorine is absorbed as in the former case, but no oxygen is given out, so that, in fact, you have a *true chloride* of the *earth lime*, and not a chloide of calcium. *Chlorine* is, as you are aware, a very powerful bleaching agent; but, as a gas, it is very inconvenient for transportation, and difficult in its application; but here the chlorine is held in combination with the lime, and the affinity by which it is held is so slight, that it has the power of acting upon vegetable colours as if entirely free. So weak is the affinity by which it is united to the lime, that by mere exposure to the carbonic acid gas of the atmosphere the chlorine is evolved, and acts as a very powerful bleaching agent. When water is added to the chloride of lime, it effects its partial decomposition; one half of the chlorine leaves the lime, and dissolves in the water; and this is the *bleaching liquid* of the shops, which is sold at a high rate, although it cannot cost more than a farthing a gallon. Sometimes this fluid is applied immediately to the substance to be bleached, but sometimes a weak acid is added to destroy the slight affinity of the chlorine for the lime, and you will see by this addition, how much the bleaching power of the fluid is increased. The manufactory of the chloride of lime is carried on on a large scale in the north of England, by passing chlorine into leaden chambers containing hydrate of lime in fine powder. So weak is the affinity which exists between the lime and the chlorine, that, in the vessels used by the bleachers, carbonate of lime is generally precipitated.

The *chlorate of lime* is a salt of very little importance; it is very soluble in water, very deliquescent, and of a sharp bitterish taste. It is easily produced by dissolving carbonate of lime in chloric acid. Oxygen is evolved when it is exposed to heat, and the salt is then reduced to a chloride.

The *nitrate of lime* is constituted of nitric acid and lime; it is very soluble in water, dissolving in less than half its weight of water; and, by the addition of a solution of carbonate of potash to the solution of the nitrate of lime, a sufficient quantity of the carbonate of lime is thrown down to make the whole a solid; and this was called by the alchymists a chemical miracle. It is sometimes found in old plaster and mortar, from the washings of which, by the addition of carbonate of potash, nitre is procured; and I have already spoken of the production of this salt in the artificial nitre-beds.

Then there are the *sulphuret*, the *sulphite*, and the *hyposulphite* of lime; but I do not enter into detail of the properties of these salts, because they are of little interest. In the second number of the *Edinburgh Journal of Science*, edited by Dr. Brewster, there is a very good paper by Mr. Herschel on these subjects, to whom we are indebted for our correct knowledge of these salts.

The *sulphate of lime* is a compound of great importance in its application in the arts; it is composed, in its dry state, of one proportional of lime 28, and one of sulphuric acid 40, forming 68 as its equivalent number. In the crystalline form, the state in which it commonly occurs in nature, it contains two proportionals of water, which it will be necessary to remember, in considering the action of heat upon this salt. Now, when you heat the crystallised salt, you drive off a quantity of the water of crystallisation, and it becomes opaque and pulverulent; and, in this state, it is known as the *plaster of Paris*. If you again mix this with water into the consistence of cream, it *sets*, as it is called, into a hard mass, and is employed in taking casts, and in the manufacture of certain cements, as the Roman cement, and so forth. It dissolves sparingly in water; one part requiring 350 parts of water for the solution of the crystallised salt. It imparts to the water a bitter taste; and you find that it renders water very hard; so that if you endeavour to wash your hands in water containing any notable quantity of the salt, the soap adheres to the hands, and a very disagreeable compound is produced, which sticks to the skin; this is owing to the decomposition of the soap by the lime. When I say that it renders water hard, I am only speaking generally of the water in and about London; all the superficial springs in and about London afford water of this kind, good enough to drink, but not well fitted for washing. If you go deeper, you come to very pure water, containing scarcely any lime, but a little carbonated alkali. The tests of this substance are of course those which indicate the presence of sulphuric acid and lime, and although it may be rather premature to go into this subject at present, I shall show you the manner of operating on water which you suspect to contain sulphate of lime, with one or two of these tests. If we add a little muriate of baryta to the water, we shall get an indication of the presence of sulphuric acid by the precipitation of a dense white insoluble powder, which is the sulphate of baryta. Then there is the oxalate of ammonia as a test for the lime; the oxalic acid combines with the lime, for which it has a strong affinity, and an oxalate of lime is formed, which is also insoluble. The well-digger's test of the purity of water is a good one; he uses a solution of soap to try the quality of the water obtained at different depths. A solution of soap in spirit of wine, if dropped into distilled water, leaves no precipitate; but if the water contain sulphate of lime, it will occasion a white flocculent adhesive precipitate. Some of the springs about London give you almost a saturated solution of the sulphate of lime; such water is very harsh and disagreeable to the taste, is very unhealthy, probably, and very unfit for washing, or for pharmaceutical or manufacturing processes.

Sulphate of lime is decomposed by the carbonated alkalies, so that if you boil it with carbonate of potash, you obtain a sulphate of potash and a carbonate of lime. In its crystalline form, called *selenite*, and lamellated, called *gypsum*, it is found in the blue clay about London. The crystals are rhomboidal, and I believe that the rhomboidal prism is the primitive form. Here is a specimen of the *anhydrous* sulphate, containing no water of crystallisation, and is a rare mineral; and the Florentine artists are in the habit of using it occasionally for small works of sculpture. Whenever the crystallised salt is heated, it crumbles down, and is then called plaster of Paris. All the varieties of gypsum, alabaster, and so forth, are only coloured varieties of the sulphate of lime.

When *phosphorus* and quick lime are heated together, a dark chocolate-coloured substance is obtained, which is *phosphuret of lime*; it is probable, however, that what is called a phosphuret of lime, is, in fact, a phosphuret of calcium. When thrown into water, phosphureted hydrogen gas is evolved, phosphorous and hypo-phosphorous acids are formed, and phosphite and hypo-phosphite of lime left in solution in the water; but these have not been particularly examined. The best mode of making this compound, is to put the phosphorus into an earthen-ware tube of about eighteen inches in length, and an inch in diameter; the phosphorus should be put into the bottom of the tube, which may then be filled up with pieces of clean quick-lime, which should be broken into small pieces. The tube should then be put into a furnace in the inclined position, so that the end containing the phosphorus may protrude; while the upper part of the tube is heating to redness, draw the tube slowly into the fire, by which the phosphorus will be volatilised, and by combining with the red hot lime, will convert a portion of it into phosphuret. The tube should be coated with clay, and, after the process, should be carefully corked until cool, when the brown pieces are to be selected and kept in well stopped bottles. The stench produced by pouring phosphuret of lime into the holes by which the water is turned on in the streets of London, was caused by the decomposition of the phosphuret, which trick was played off by some of the persons who are adverse to the introduction of gas lights, thus trying to make people believe that the stench issued from the gas; but it was a very foolish and expensive trick, by whomsoever it was played off.

The *phosphates of lime* are four or five in number, but that which consists of one proportional of lime, and one proportional of acid, constitutes the hardening ingredient of bone, and is the substance resorted to for the production of phosphoric acid. Phosphate of lime exists native, constituting a mineral, of which there is a very great variety, to which various names have been given. My opinion, however, is, that chemical nomenclature should be applied as far as possible, to mineralogical compounds, as they are found in Nature; whereas a number of confusing names have been applied to them, depending upon their colour, shape, and other properties; and lately, mineralogists have taken it into their heads to call minerals after the names of different persons, than which nothing can be more absurd; thus they have Thomsonite, Jacksonite, Childrenite, and a half hundred of others. Here is a specimen of the native crystallised variety, of singular beauty, from Devonshire; here another from Cornwall. Here is a specimen of the *asparagus* stone, or green native phosphate, from Bohemia. Here is a specimen from Spain, which, when heated, exhibits a beautiful green light.

This brings us to the *carbonates of lime*, a very important class of bodies, so important, that it is embarrassing to condense their chemical history into the necessary limits. The carbonate of lime may be procured by presenting a solution of carbonic acid to a solution of lime, and I shall show you this mode of forming it. Now, in the first place, if we get carbonic acid and lime-water together, the carbonic acid readily combines with the lime, and converts it into a carbonate of lime, and you have carbonate of lime, or chalk, precipitated: this is the direct formation of it. If you take a solution of carbonic acid, and add to it a solution of lime, you obtain a similar result; but, you will observe, that if you add an excess of acid, this precipitation disappears, the carbonate of lime being again dissolved by the excess of acid, and a considerable quantity of carbonate of lime may be taken up in this way. This experiment, then, will explain to you why it is that many springs contain a large quantity of carbonate of lime, which is held in solution in the water by excess of carbonic acid, and why the water deposits the carbonate of lime as the carbonic acid escapes; such are called petrifying springs, and baskets, and other things, immersed in the water of the spring, become coated with the carbonate of lime, as is especially the case at Matlock, in Derbyshire, where the carbonate forms fine *stalactites*, admitting of a beautiful polish. The pipes used for the conveyance of water are sometimes coated with such a quantity of the carbonate, that the wood of the pipe might be removed, and its continuity preserved, by the incrusted carbonate. (Specimens of this kind were shown.) These are so many instances of the solution of carbonate of lime in excess of acid, and of the manner in which it is deposited. You have seen that when we precipitate a salt of lime by carbonic acid, we obtain a carbonate of lime; but as it exists in such abundance in nature, we never have recourse to artificial means for its production. Now, with regard to the natural forms of this substance; you have it massive or foliated, in different forms of marble; you have it in the form of stalactite, or stalagmite; you have it in different kinds of marl, and in several clays: and when you recollect that chalk is nearly a pure carbonate of lime, being mixed only with a little argillaceous earth; and when you also recollect, that there are large mountains of lime-stone, which is also a carbonate of lime, you will see what immense quantities of this substance there are in nature.

It becomes our business now to establish the composition of carbonate of lime; and it is composed of 28 parts of lime and 22 of carbonic acid; consequently, it consists of one proportional of lime and one of carbonic acid, and its equivalent number is 50. It dissolves, as you have already seen, with effervescence in the acids, and thus furnishes us with no bad means of determining the strength of the acid employed, with which it always forms saturating compounds. If you take a piece of marble and weigh it, and pour on it diluted muriatic acid, you can ascertain the strength of the acid, by ascertaining how much of the carbonate of lime the acid will take up. *Lime-stone* is a substance of great importance in the arts; it gives us quick-lime when burnt, and the base of many cements, forming a mortar when mixed with sand, which has the property of gradually concreting until it becomes as hard as stone. It is also of great use in agriculture, to say nothing of its ornamental applications, which are very numerous. The fact is, that lime is one of the most important manures which we possess; and although I cannot at present enter upon the nature of its action, I may give you a general notion of its use by saying, that quick-lime has the power of acting on animal and vegetable substances, so as to render them soluble in water, and it is in this way that the different vegetable and animal substances are rendered fit for the nourishment of plants, the lime itself becoming inert and forming a valuable part of the soil. The lime, therefore, ought to be applied to the soil, or mixed with the other manure, as quickly as possible after it comes from the kiln; and, hence, the great impropriety of leaving heaps of it about fields, as you often see done, by which it loses its activity and usefulness; but this will be entered into more by and by, when considering the action of lime upon vegetable and animal bodies.

Boracic acid combines with lime, and forms a mineral called *boracite*, of no great importance. Our time will not allow us to-day to conclude the subject of lime, by considering the compounds which it forms with *fluoric acid*, as I intended to have done. I shall, therefore, defer it until the next lecture, and conclude the present by mentioning to you some of the *means* by which the presence of lime *may be detected*. Here is a solution of lime in muriatic acid, a solution, in fact, of chloride of calcium. Now one of the readiest tests of the presence of lime is oxalate of ammonia, or oxalic acid, which, when added to a solution of lime, occasions in it a white precipitate, which is oxalate of lime; and if this precipitate be collected and heated, the oxalic acid, being a vegetable product, is easily destroyed by the heat, and you have the lime left in a pure state. When you want to know the quantity of lime in any solution, precipitate it by oxalic acid, heat the precipitate red hot in a platinum cup, and you obtain the quantity of lime in the liquid. One of the characteristics of lime is, that its salts are not precipitable by caustic or pure ammonia, but, if you add the carbonate of ammonia, then you get a carbonate of lime. Now it often happens, that lime is held in solution by substances which are precipitable by ammonia, and if you then use the carbonates of potash or soda you will obtain a carbonate of lime. With regard to the insoluble salts of lime, they are decomposed by the action of carbonate of potash and heat, and a carbonate of lime will be formed which may be precipitated from its solution by pure potash. Pure ammonia does not precipitate the salts of lime from their solution—pure soda and potash do. A great many other tests of lime may be resorted to, but there are none more effectual.

The nature of *fluor spar*, and the other compounds of lime with fluoric acid, will be considered in the next lecture.

FOREIGN DEPARTMENT.

Experiments on the Electricity of the Blood, the Urine, and the Bile of Animals, in a healthy and diseased state. By F. Bellingeri.*

The following are the conclusions to which this physician has arrived.

1st. That venous blood in oxen, sheep

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* Annali Universali di Medicina, April, 1827.

and the greater number of birds, preserves, under almost every circumstance which accompanies health, a degree of electricity, equivalent, if not superior, to that which is proper to iron.

2nd. That in the same species of animals, age diminishes, in a small degree, the proper electricity of venous blood.

3rd. That the different seasons of the year, and different conditions of the atmospheric air, exercise but little influence in changing the electricity of the blood.

4th. That it is very probable that venous blood always preserves the same quantity of electricity in the healthy state, since the electricity of other liquids, viz., urine, bile, and perspiration, is frequently found to change.

5th. That in those cases where inflammatory diseases supervene, the quantity of electricity of venous blood, in a given species of animals, is susceptible of sensible diminution.

6th. That the venous blood of horses does not contain quite so much electricity as the venous blood of calves, oxen, lambs, and birds, and that the electricity of the venous blood of horses nearly resembles that of antimony.

7th. That the electricity of venous blood is generally rather superior, sometimes equal, but never inferior, to the electricity of arterial blood.

8th. That arterial blood is frequently a bad conductor of electricity.

9th. That venous and arterial blood, in the healthy state, after it has been taken away some time, and even when its constituant principles, serum and cruor, are already separated, preserves, nevertheless, the same quantity of electricity as it possessed when it passed from the vessels.

10th. That the electricity of venous blood, in cases of inflammatory disease, is balanced by the electricity of water and air, even when the elements of the blood, serum and coagulum, are separated from each other.

On the other hand, M. Bellingeri draws the following conclusions, as regards the electricity of urine and bile :—

1st. That the electricity of these liquids, even in the healthy state, is not constantly the same ; that it varies very often, and only accidentally corresponds to the electricity of water and air.

2nd. That these liquids, and more especially bile, are bad conductors of electricity.

3rd. That bile, in general, contains more electricity in adult, than in young subjects.

4th. That urine and bile, when kept for some time, preserve the same quantity of electricity which they possessed when evacuated from the body.

5th. That the electricity of urine is capable of increase by putrefaction.

ROYAL INSTITUTE OF FRANCE.*

M. Dumeril read a report, on a paper of M. Chabrier, which treats of the mechanism of the wing of birds in flying.—After having detailed his theory, he endeavoured to show, that the pectoralis major not only acts on the wings and bones of the arm, but that, on the contrary, its principal action is exerted on the sternum, and consequently on the trunk, which thus finds support on the humerus and atmosphere, resembling the manner in which the fish finds a support on the water, which it strikes with its tail. According to M. Chabrier, a bird only brings into action its pectoralis major, either at the moment of its ascent or descent. M. Chabrier then detailed the different solid parts (bones and muscles) which are destined to assist in flight, as well as their principal modifications, such as the length, the breadth of the sternum, and especially its crest ; the situation and form of the fork-like bone, the length, size of the bone of the arms, of those of the fore-arm, the arrangement of the feathers, as well as the modification of the pectoralis major and minor, together with the arrangement of the tail, the feathers which surround it, and the use of this part in flight : every thing which is stated above agrees with what was before known.

M. Chabrier attributes the particular junction of the ribs with the bony appendices of the sternum, which correspond to the cartilages, to the action of the pectoralis major on the sternum—an action so quick and violent, that, without this arrangement, the mechanism of respiration would be much more difficult ; the ribs of birds, properly so called, being fixed to the dorsal vertebræ, which are joined to each other, or are, at least, immoveable in this region of the spine.

In the last part, M. Chabrier concludes, that the wings of birds only serve in flight to furnish a support on the air, and that, when they appear to be falling, it is most frequently the body which is rising ; and reciprocally, that when the wings appear to be elevated, it is the body which is depressed.

M. H. Cassini read a report, both in his own name and that of MM. Desfontaines and Mirbel, on a paper of M. A. Brogniart, which treated of the spermatic granules of vegetables. The structure of the vegetable ovum, before the appearance of the embryo, or during its existence, was for a long time in great obscurity. It is only within a few years that MM. Mirbel, Turpin, Treviranus, Dutrochet, and still more recently, Brown, have examined with great care the structure of this organ. The direct experiments by which it has been attempted to prove the necessity of fecundation for the formation of the embryo, are, either by isolating the sexes, or by irregular fecundations, which leave very little doubt on this subject. Some physiologists, on the contrary, preserve it, to show the kind of influence of the pollen in fecundation. M. Brown endeavours to prove the existence of generation, not by the result of experiments, which always leave some doubt, but by positive facts which the eye may follow; that is, by studying the structure of the different organs which assist in generation, and by examining successively all the phenomena which accompany and follow fecundation. It is by these means that M. Brown has endeavoured to establish the part which the spermatic bundles, contained in the grains of the pollen, perform in the act of fecundation, and the necessity of their assistance for the formation of the vegetable embryo. It is by means of the excellent microscope of D'Amici, that he has obtained results which confirm his theory, and that he has seen the grains of the pollen filled with granules, different in size, opacity, and perhaps in form and motion. The granules penetrate into the tissue of the stigma; from thence, becoming mixed with a copious fluid, secreted only at the time of fecundation, are carried across the interstices to the point of the placenta, which corresponds to the ovula.

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* Revue Medicale, Janvier, 1828.

From these facts, it is evident that the vegetable embryo does not pre-exist before fecundation, and that the spermatic fluid is not limited to its vivification; the theory of the union of the germs is then as little fixed in the vegetable as the animal kingdom. It appears equally certain, says M. Brogniart, that one of the spermatic granules does not alone form the embryo, and that, consequently, this embryo does not exist quite formed in the fecundating fluid. Generation does not consist then, uniformly, in sending it to the male in order to be developed. The assistance of the parts formed by the male organ (the spermatic granule) and of the parts formed by the female organ (the vesicle of the embryo, and the mucous granules), for the formation of the embryo, does not appear, on the contrary, to be well proved, and the theory of epigenisis is thus found to agree better than any other, with the different facts, not only in the animal, but also in the vegetable kingdom.

LONDON MEDICAL SOCIETY.

February 18, 1828.

Dr. Haslam, President, in the Chair.

Mr. Amesbury introduced to the notice of the Society, the following interesting particulars of a case of non-union of the femur, recently treated at St. Thomas's Hospital. It will be observed, from the subjoined report, that three different methods were ineffectually pursued in this case; first, the use of the ingenious apparatus of Mr. Amesbury, by which pressure and rest were fully obtained; secondly, the introduction of a seton; thirdly, the operation of cutting down upon the fracture, and destroying an artificial joint which had formed. The whole of these means, it will be remarked, were unsuccessful; so that, at length, amputation was resorted to. The case was given as follows:—

Malcolm M'Lean, a strong healthy sailor, ætat. 35, was admitted into St. Thomas's Hospital, March 11th, 1827, under the care of Mr. Green, having a very loose oblique fracture of the upper part of the middle third of the thigh, which had existed twenty-four weeks. The injury was occasioned by a fall upon deck, from a height of about sixty feet, and the back soon became much swollen and very painful. There being no medical man on board, ten days elapsed after the occurrence of the accident, before any surgical assistance could be procured. At the end of this time, the ship arrived at a port in Monte Video, where he was received into one of the Portuguese Hospitals. During the time he was in that Hospital, nothing was employed to support the limb but short splints, extending from the pelvis to the knee. These proved very inadequate, motion and displacement being produced almost as readily as if the case had been left to nature; the pain and swelling, however, gradually subsided. Ten weeks after the accident, when he removed from the Hospital, to return to England, there was no pain, and very little tumefaction in the limb, but they were re-produced, in a slighter degree, by his exertion to get to the ship, which he accomplished, with the assistance of crutches, the limb being surrounded with short splints as before.

On the 19th of March, twenty-five weeks after the accident occurred, and a week after the man's admission into the Hospital, Mr. Green transferred the management of the case to Mr. Amesbury. Upon attentively examining the limb, the fracture was discovered extending obliquely downward and outward, through the upper part of the middle third of the bone. The fractured ends were very loosely connected, so that they could be freely moved in all directions. The upper portion was bent upon the pelvis, and the lower portion was retracted, upwards of two inches and a half along the inner side of the upper. By gentle extension, the limb could be brought to nearly its natural length, but the moment the extending force was discontinued, the displacement again returned. Thus, the extent of motion which the fractured ends had upon each other, in the longitudinal direction, was about two inches and a half. The fractured part felt somewhat tender, when firmly pressed with the fingers, but scarcely any pain was produced by freely rubbing together the broken extremities. The lower portion could be carried out of a natural line, with the upper end almost bent upon it, without producing any inconvenience calculated to give rise to complaint on the part of the patient.

1. *Treatment by Pressure and Rest.*—As Mr. Amesbury had not had a case of non-union of the thigh so loose, he remarked, that he was unable to say how far the plan of treatment which he had found successful in other cases, would prove beneficial in this. He doubted whether an "artificial capsule," containing a fluid resembling synovia, had not formed. It was, at length, determined to apply the apparatus which Mr. Amesbury has invented for simple fractures of the middle and lower thirds of the thigh, for simple and compound fractures of the leg, and simple and compound dislocations of the ancle, in such a manner as to *retain the limb of its proper length, and to press the fractured surfaces strongly together.*

The apparatus had the effect of producing pain in the fracture in a few hours after it was applied. The pain increased, and became very severe on the third day, accompanied with startings of the limb: the pain, however, though severe, was not of a description to produce any marked effect upon the system. On the fourth day the uneasiness had much subsided, and the straps were now tightened, which had the effect of increasing the pain in the fracture, but it soon became moderate. He wore the apparatus for about ten weeks, suffering more or less pain in the fracture during the whole period, with the exception of two or three days; but, notwithstanding the existence of the symptoms which precede union (pain and tenderness in the fracture) were much more severe than in any former case Mr. Amesbury had witnessed, the only apparent benefit derived, was a closer confinement of the fractured ends, by the adhesion of the soft parts around them.

2. *Introduction of the Seton.*—The plan of treatment, by pressure and rest, having failed in producing union, it became matter of consideration, what should next be done in order to effect it. Mr. Green concurred with Mr. Amesbury in the opinion, that the probable cause of failure, was the existence of an artificial capsule, containing a fluid resembling synovia, and that it would be advisable to destroy its integrity by the introduction of a seton, which would, at the same time, have the effect of exciting a high action between the ends of the bone, and in the neighbouring soft parts. This operation was determined upon as the most simple of those likely to be advantageous, when had recourse to, in conjunction with means calculated to support the fractured ends in apposition and at rest.

The man was placed upon one of the fracture-beds, and the thigh extended to its proper length, where it was confined in the bent position. He was brought to the edge of the bed, with the limb extended over the middle and lower planes of the bedstead as before, and, while in this position, Mr. Green passed a long curved seton needle, armed with silk, through the thigh, directing it between the fractured extremities of the bone. The needle was introduced at the outer and back part of the thigh, and brought out anteriorly without difficulty. The needle being removed, the ends of the silk were left hanging, and were covered with only a piece of simple dressing. The man was now shifted back to the middle of the bed, without suffering any retraction of the limb to take place, and, when confined in that situation, by fixing the foot and the pelvis, a splint was applied along the outer side of the limb, and secured in such a manner as to keep the fractured surfaces gently together, without pressing upon the soft parts surrounding the fracture.

On the following day, the limb was rather swollen round the seton, and the pulse had increased in frequency: free suppuration took place in the course of two or three days, and the constitutional disturbance became rather severe. The openings soon discharged a large quantity of pus daily; and this being continued for some time, had a manifest effect in reducing the system.

About a fortnight after the introduction of the seton, it was observed that the matter began to burrow beneath the fascia, presenting itself at the upper and inner part of the thigh. This affected his constitution still more; so much, indeed, was the man's health disturbed, that it was not deemed safe to allow the seton to remain in any longer, and it was accordingly removed on the nineteenth day. It had produced great thickening of the soft parts surrounding the fracture, such, Mr. Amesbury observed, as has been often mistaken for callus; and when the fractured ends were pressed together strongly, he experienced severe pain in the part. The matter was daily evacuated from the upper part of the thigh, where it lay very deep; and it was found that the contents of the abscess gradually diminished in quantity, and ultimately disappeared through the openings made by the seton needle.

After the seton was withdrawn, the constitution soon began to rally, under the influence of tonic medicines and a generous diet, so that the man was sufficiently recovered, in the course of a few days, to feel himself able to take the common food of the hospital. Great care was taken to keep the fractured surfaces in close apposition and at rest, during the suppurative process; but, as it was necessary, for some time, to move the splints daily, in order to evacuate the matter which had burrowed along the outer side of the limb, for about two inches beneath the vastus externus, as well as that which had collected on the inner side, so that the parts could not be kept in that perfect state of quietude, which it was desirable at this time to maintain; the matter could not be evacuated, without producing motion of the fractured extremities of the bone.

At the expiration of about five weeks from the time the seton was introduced, the discharge from the wounds had ceased, but there still remained considerable tenderness in the fracture, and thickening of the surrounding parts. Three additional splints were now applied, and the whole secured round the limb, as the patient laid upon the fracture bed, care being taken to press the fractured surfaces strongly together, and to maintain them in tight apposition and at rest. These splints were thus continued upon the limb for a month; and, at the expiration of this period, being nine weeks from the time the seton was introduced, they were removed, and the limb examined, but no ossific union had taken place. The limb was rendered stiffer by the thickening of the soft parts, and this was the only difference that the seton had produced.

3. *The operation of cutting down upon the ends of the Bone.*—The man was removed to a common bed, and sometime afterwards it was determined, in consultation, to cut down upon the fractured ends, with a view to ascertain, if possible, the cause which still prevented the process of bony union, and then to act in that manner which, upon exposing the ends of the bone, might appear most advisable. The man was again placed upon the fracture-bed, with the limbs in the bent position, in order to secure to the operator a perfect command over the muscles of the thigh. A semicircular incision was made by Mr. Green, commencing at about the middle of the rectus, and then carried round through the belly of the vestus externus. The flap was dissected back, and the fractured end of the upper portion of the bone was brought into view. Upon clearing away the muscles, it was seen that the two broken extremities of the bone were connected by a thick dense capsule, resembling the capsule of the hip-joint, the inner surfaces of which were perfectly smooth and shining. The integrity of this capsule was destroyed, by removing a portion of it from the upper fragment; but, in consequence of the difficulty which was experienced in getting at the fractured end of the lower portion, (which, as has been said, lay on the inner side of the upper,) it was left, covered with the ligamentous matter. In removing about half an inch of the fractured end of the upper fragment, by means of Hey's saw in order to gain room, it was found that the bone had become soft and spongy at this part, apparently from interstitial absorption. From the manner in which the ends of the bone lay, it was evident that the lower portion could not be cleared of the ligamentous deposit which covered it, without enlarging the wound in the soft parts, a proceeding which, in the opinion of Mr. Green and some other surgeons, appeared objectionable.

Two or three small vessels were secured, and the cut surfaces were suffered to fall together, where they were lightly confined by a couple of adhesive straps, and a poultice was then applied over the wound. The pelvis was confined by the strap attached to the upper plane of the fracture bedstead, (upon which he was placed previous to the operation,) and the foot was secured to the foot-board, The thigh was left free from splints and bandages, being preserved of its proper length and at rest.

The man did not suffer much from the operation, except when the finger was passed into the artificial capsule between the oblique surfaces of the fractured ends, which was done in order to ascertain its extent. The capsule possessed a high degree of sensibility, so much, indeed, that when the finger was passed into it, the man could not help crying out. He said, that the pain produced by the incision through the integuments and muscles, was nothing compared to that which he experienced when the *inner surface* of the capsule was pressed with the finger. He was a considerable time under the operation, and felt chilly when it was over, but soon recovered his natural heat.

He passed a good night, and was so free from constitutional disturbance, that he was ordered full diet on the day after the operation. The limb became moderately swollen at the seat of incision, and suppuration was established on the third day. The greater part of the cut surfaces adhered, however, so that there was only a small opening at the upper and outer part of the wound for the matter to escape. Some of the pus burrowed towards the upper and inner part of the thigh, where an abscess formed, and made its way to the surface, producing some, but not severe, excitement of the system. The matter was evacuated by two punctures made within a few days of each other, and the man's health soon became good. On the tenth day a splint was padded and applied along the outer side of the limb, with a view of producing absorption of the ligament, which covered the fractured surfaces, by forcing them together; but this was done in such a manner as not to press upon the wound, which could easily be dressed without moving the splint. There was much tenderness in the fracture for the first month after the operation, especially where even the slightest motion was given to the limb.

Seven weeks after the operation, the splint was removed, and the limb examined. No union of the bone had taken place. The punctures made for the evacuation of the matter of the abscess had now healed; but there was still remaining a considerable portion of the wound over the fracture.

Thinking it possible that the splint cloth, which had been placed round the limb over the splint, had not been sufficiently powerful in its action to produce absorption of the ligamentous matter, which covered the ends of the bone, a splint was applied on the inner side of the limb, extending the knee to within a very short distance of the fracture; and the outer splint being applied as before, the limb was surrounded by the web of a tourniquet, which passed over the splints immediately below the fracture. By pursuing this plan, the ends of the bone were very strongly forced together, by turning the screw of the tourniquet. These means did not, however, produce any material excitement on the fracture. There was pain occasionally, but it was only slight and transient.

The action of the tourniquet was kept up as powerfully as the man could bear it for a fortnight, making nine weeks from the time of the operation. It was then removed, and, on examining the limb, it was found that no good whatever had resulted from the operation, or the treatment by which it was followed.

The limb was perfectly useless; and, seeing that all endeavours to bring about union of the bone had failed, the poor fellow was now desirous of losing it, which was accordingly agreed to.

The operation was performed on Friday, Feb. 15, in a very masterly manner, by Mr. Green. The bone was taken off immediately above the artificial joint, and about half an inch below the trochanter minor.

Examination of the Bone.—At the time of the operation, which was performed with a view to remove the artificial capsule, a piece of the fractured end of the upper portion was removed, and it was observed that the bone was soft and spongy, apparently from interstitial absorption. This, however, was not the case higher up; where the bone was sawed off in amputating, it was found perfectly healthy. Though the integrity of the artificial joint had been destroyed, it was now again complete. The greater part of it was nearly the thickness of the capsule of the hip joint, but, at the upper part, it was thin, like the capsule of the shoulder. The capsule was accidentally torn at this part, with the finger, and the inner side was seen smooth, and had very much the appearance of synovial membrane, being moist and shining. The ends of the bone were rounded, and, where they came in contact, they were flattened and covered with a dense fibrous structure, very similar in appearance to the intervertebral substance, when divided horizontally, but especially that part of it which is found half way between the centre and circumference.

In a few remarks, with which Mr. Amesbury followed up the case, he especially dwelt upon the circumstance of the man being in good health, a fact in perfect accordance with what he had observed in forty-five cases of non-union that had fallen under his care. The want of union in all these cases, he thought was attributable to the inadequacy of the means employed, in order to keep the fractured extremities in apposition and at rest, although the plans adopted were various. In the case under consideration, an artificial joint had formed in the short space of six months, which he considered as corroborative of the opinion, that, where the fracture is very loose, and the powers of the constitution strong, artificial capsules form much sooner than where the ends of the bone are so connected, as to allow of but slight motion.

The case of M'Lean, with another of seven months standing, Mr. Amesbury said, were the only instances in which he had failed to procure union, by means of perfect rest, with pressure, under the use of his own apparatus; but, although it had failed in effecting a bony union in these two cases, it produced symptoms more severe, but similar in kind to those which preceded the uniting process, in all the successful instances. Eighteen cases of non-union have been successfully treated by Mr. Amesbury, with most of which the fracture had existed above six months: one was of nine months standing, one ten, one eleven, and two, fourteen months. None of the cases were under treatment more than ten weeks, and some not more than a month.

In contending for the superiority of his plan of treatment, whilst he admitted that an instance of failure might now and then occur, Mr. Amesbury argued upon its advantages, by contrasting it with the twenty-four cases he had seen otherwise treated, in only one of which was union effected. In cases like that under consideration, a *very loose fracture* of long standing, he considered it would be better after having unsuccessfully tried the plan of pressure and rest, to cut down upon the fractured ends of the bone, and remove with the knife, any ligamentous matter with which they might be covered, and then to wash the ends of the bone with some stimulating fluid calculated to produce inflammation, or to destroy the connecting medium by caustic, and then have recourse to the assistance of mechanical support. A similar treatment had been proposed in the case of M'Lean, in lieu of sawing off the ends of the bone; but Mr. Green (to whom Mr. Amesbury paid a high compliment for his liberality) was fearful that it would be productive of dangerous constitutional disturbance.

The discussion which followed was brief, as a large portion of the time of the society had been occupied in the reading of the case, and the observations. Dr. Clutterbuck objected to the expression "*artificial* capsule," considering the phrase "preternatural capsule" as more applicable. Dr. Calso objected to the use of caustic, with a view of producing inflammation in the bone, arguing, that, under such a condition, the bone was not disposed to unite.

Mr. Lloyd said, that he did not regard the ordinary methods of treating fractures of the thigh, with *short splints,* to be so objectionable as Mr. Amesbury had stated. He (Mr. Lloyd) had treated a large number of cases at St. Bartholomew's Hospital, according to this plan, and perfect union, *without deformity,* had been the invariable result.

February 25, 1828.

Mr. Amesbury this evening entered into a long dissertation on fractures of the thigh, illustrating his opinions by reference to various drawings. After speaking of the different kinds of fracture in reference to direction, Mr. A. proceeded to the consideration of the plans of treatment employed in these accidents. The use of short splints to the thigh, placing the foot on the heel, with a pillow under the ham, was condemned, on the ground of its total inadequacy to prevent motion in the lower part of the bone. The position, usually called Pott's, was charged with the same defect; and, in addition, it was affirmed that the foot usually becomes everted under this treatment. The practice of Boyer, with the long splint, was opposed, on the principle of the force being exerted in a straight line, whereas the femur has a considerable curvature forwards. The double inclined plane, now ordinarily employed, was said to be objectionable, in consequence of its allowing the body to gravitate downwards in the bed, and thus the upper part of the femur is tilted forward.

The whole of these defects, Mr. Amesbury contended, are obviated under the use of his apparatus, of which, we presume, it is unnecessary to enter into a full description, it having been for some time before the public, and probably is well known to our readers.

The debate which ensued was brief. Mr. Callaway, whilst he bore testimony to the ingenuity of the apparatus, and admitted its great utility in some cases, at the same time considered Mr. Amesbury was somewhat too sweeping in his denunciation of all other methods of treatment. Non-union, Mr. Callaway said, is a rare circumstance, amidst the many thousand cases treated annually in the hospitals, showing that the treatment there employed, although differing much from that of Mr. Amesbury, is adequate to the cure of the accident.

Mr. Briant spoke of numerous cases of fracture of the thigh, which had fallen under his observation, successfully treated under the use of short splints. Some questions were put to Mr. Amesbury, with respect to the essential difference between his apparatus and the common double inclined plane, and this terminated the business of the Society.

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 23, 1828.

Mr. Mayo, in the Chair.

Dr. Barry, (with reference to the preceding discussion on diabetes,) in a manly and candid explanation, proved, to the satisfaction of the Society, that a slight error as to dates, of which he had been unconsciously guilty, and which had been since corrected by a letter from the patient, reconciled the apparent contradictions between himself and Dr. Ayre, and fully acquitted patient and all of every thing like intentional incorrectness in their respective statements of the case.

Dr. Barry then submitted to the consideration of the Society some peculiar pathological views, and a particular mode of treatment of typhus fever, contained in a lecture delivered and published by his friend, Dr. W. R. Clanny, of Sunderland, to whose talents he paid a well-merited tribute of praise. The first were derived from repeated analyses of the blood in health, and in all the stages of typhus. It was stated, that on the 6th day of the disease, albumen, which, in health, forms 121 parts in 1000 of healthy blood, is reduced to 98, and on the 12th to 75. That fibrin, under similar circumstances, is reduced from 28 to 1000, to 25 and 22 successively; and that both these important constituents are found gradually to increase after the 12th day, when the case terminates favourably, but not otherwise. Free carbonic acid, which is always present in healthy blood, is not found in that of the typhus patient after the sixth day. The treatment, which is said by Dr. Clanny to be uniformly successful, consists in the administration of carbonic acid gas, *per os et per anum*, in large and repeated doses.

Dr. Barry concluded by observing, that the ancients chiefly looked to the functional in symptomatic characters of disease; that the moderns added the anatomical, and that we were likely to see a period when the chemical characters would also be considered of importance. He said, that in the present state of our knowledge, we are authorised to conclude, that an altered state of the fluids precedes all the functional derangement, and organic lesions exhibited by those who labour under, or perish, by typhus fever.

Dr. Copland was opposed to these views, and considered the nervous system as the first affected.

Dr. Gregory never knew any practical good result from talking about carbon and hydrogen, and these kind of things.

Dr. Rees and Dr. Sigmond spoke at great length, partly *pro* and partly *con*, but chiefly in support of Dr. Barry's views.

Dr. A. T. Thomson spoke in favour of Dr. Clanny's chemical pathology.

The President said something about cold affusion, and attempted to throw *cold water* on the subject of discussion, but failed, and received rather a sharp hit from Dr. Barry.

The discussion, towards its close, became so interesting, that two Gentlemen volunteered, at the same moment, to bring forward, at the next sitting, "The Pathology and Treatment of Fever generally." Of these, Dr. J. Copland's offer was announced from the Chair as accepted.

MEDICO-CHIRURGICAL SOCIETY,

February 26.

Benjamin Travers, Esq. in the Chair.

A paper by Mr. Brodie, on the immediate effects of injuries of the brain, was read to the Society by Dr. Seymour.

After the reading of the paper was concluded, a considerable pause ensued before any member rose.

Mr. Hawkins observed, that the paper of Mr. Brodie was so comprehensive, that it afforded little room for discussion; but there was one point mentioned, to which he would call the attention of the members, for the purpose of ascertaining whether their experience on the subject coincided with his own. It had been stated, that the loss of sensation and voluntary motion consequent on injury of the brain, was opposite to the side on which the injury was received; now he would ask, whether, from extravasation of blood at the base of the skull, there might not be pressure on the nerves (for instance, the portio dura and 5th pair) of the side on which the extravasation occurred, in which case the motions of the lid and muscles of the face of the same side would be impaired? It had been said, that the bleeding from the external ear in injuries of the head, probably arose from rupture of the lateral sinuses; but he would ask, whether it might not sometimes occur from a mere laceration of the membrana tympani? because, if it did, a knowledge of this fact would lead to an important practical distinction in the prognosis of the complaint?

Mr. Earle would ask Mr. Hawkins, whether he ever observed laceration of the membrane of the tympanum without fracture of the petrous portion of the temporal bone? He had, among many cases which had come under his notice, never observed the one unaccompanied by the other.

Mr. Hawkins said, that he had frequently seen bleeding from the external meatus, in cases where, from the arterial character of the blood, he was certain it could not have arisen from the lateral sinus, and which, in his opinion, could only have arisen from laceration of the membrana tympani.

On referring to the paper of Mr. Brodie, it was found that cases of partial paralysis on the same side as the injury, were alluded to; in fact, there was a case similar to the one which Mr. Hawkins supposed, mentioned by Mr. Brodie.

Mr. Hawkins was sorry that the case should have escaped his attention.

Mr. Earle said, that he had observed, in injuries of the head, a train of symptoms which had not been alluded to by Mr. Brodie. He had sometimes seen, in cases where the locomotive powers were destroyed, a kind of convulsive twitching of the muscles of the affected part. Very recently, in a case which was under his care at St. Bartholomew's, of injury of the head, there was *complete paralysis* of one side; but, on being pinched, the patient experienced *sensation*, and there was frequent twitching, or convulsive action, of the muscles of the leg and arm. On examination after death, extravasation of blood, fracture, and other injuries, were discovered.

Dr. Johnson observed, that in affections of the head, not arising from local injury, the symptoms mentioned by Mr. Earle were far from being unfrequent; in simple apoplexy he had frequently observed them. Within the last three days, he was called to a gentleman attacked with apoplexy; for twenty-four hours after the attack, there was loss of sensation and motion; but, from the expiration of that time to his death, there were those convulsive motions of the muscles, to which Mr. Earle had alluded, without any other marked return of muscular power.

The Society then adjourned.

THE LANCET.

London, Saturday, February 29, 1828.

We believe there is not an unprejudiced man in or out of the profession, who, after a careful perusal of the case of Rolfe v. Stanley, and a dispassionate consideration of the circumstances connected with that case, to which we called the attention of our readers in our last Number, is not convinced of two things; first, that the case proved on the part of the plaintiff, fully justified the jury in returning a verdict against Mr. Stanley; and, secondly, that the combined testimony of the six Hospital Surgeons, by which an attempt was apparently made to screen Mr. Stanley from the consequences of his unskilfulness, was, by reason of the interested character of the witnesses, justly regarded by the jury as unworthy of influencing their verdict. As to the effect produced by this trial on the minds of the public, it is decidedly favourable to the great body of the profession. It is calculated to raise the great mass of English surgeons, absurdly denominated general practitioners, in public estimation, and, by withdrawing the veil from the corrupt system under which they have hitherto been degraded and depressed, to prepare the way for their complete restoration to independence and respectability. It is not true, as has been stated in one of the journals supported by the Bat faction, that we have taken advantage of a case, affording a solitary instance of want of skill in a hospital functionary, to hold up the whole body of Hospital Surgeons to public contempt. Our opinion of Hospital Surgeons is not founded upon the case of Rolfe v. Stanley; but the case of Rolfe v. Stanley afforded an obvious illustration of the opinions we have uniformly held and maintained in this Journal, as to the capabilities of Hospital Surgeons. What was the language of The Lancet in December last?

> "Sir Astley Cooper, on one occasion, publicly declared, that there was not a hospital surgeon at St. Thomas's and at Guy's, who was not either his nephew, or his niece's husband, or connected with him more or less closely by ties pecuniary or domestic. What are the consequences of a system which is thus unblushingly admitted to be founded in corruption? Our hospital surgeons are not only inferior to men holding similar situations in other countries, but they are below par, in point of professional information, as compared with practitioners at home. Some of them are the laughing-stocks of their assembled pupils; some few of them acquire considerable dexterity in the performance of particular operations; but we repeat, that as a body, they are below par in point of professional information, and know less of pathology, less of the nature and treatment of disease, than the mass of general practitioners."—*Lancet*, Dec. 15.

At the time this passage was written, we had never heard of the case in which the "excellent anatomist," Mr. Stanley, mistook a foreign body at the distance of an inch from a man's *entire* patella, for a portion of that patella; and this case is, in fact, only one among a number of similar instances, which are only less strikingly illustrative of the truth of our observations, because they have not been made the subject of judicial investigation. We have no wish to press more severely upon Mr. Stanley, than truth and justice demand at the hands of independent medical journalists; but when his injudicious defenders talk of the compassion which is due to his situation, they forget that some compassion is also due to his patient, and some respect to the interests of the public. One of our contemporaries, whose obscurity shall not, on this occasion, protect him from our animadversion, has been silly and base enough to declare, that a medical journalist ought not, in commenting on Mr. STANLEY's situation, to be influenced by any other feeling, except that of a desire to screen an individual engaged in the same craft with himself. This is precisely the language which used to be held by the "Hole and Corner" surgeons of St. Thomas's Hospital. A surgeon destroys a patient, for example, by mistaking the artery on which he should place a ligature, or by performing the operation for lithotomy, when there is no stone in his bladder. Well! exclaim the Bats, suppose he does? These accidents will, no doubt, happen; and, we admit—candid creatures!—that, when they do occur, they are extremely distressing TO THE SURGEON! But would you aggravate the distress, which a surgeon never fails to feel when he destroys or maims a patient, by giving publicity to his failure, or seeking, if you are the sufferer from his ignorance, and have the good fortune to be only maimed, to recover damages in a court of justice? RODERICK MACLEOD has, in the same spirit, favoured the readers of the Excrescence with a defence of Mr. Stanley, wherein great indignation is expressed at the state of the law, which subjects a hospital surgeon to an action for damages, merely on account of his having mistaken the nature of an injury in the knee of a tailor! "The tailor is alive and well, and can bend his knee," says this judicious apologist for Mr. Stanley. Is it not intolerable, then, that a hospital surgeon should be subjected to a vexatious suit, merely for having mistaken a piece of flint, at the distance of one inch from his patient's *entire* patella, for a portion of that patella? True it was, that the defendant suffered the most excruciating agony, in consequence of this mistake, during a period of eleven months; but, then, he was only a tailor, while Mr. Stanley is a hospital surgeon. "The tailor is alive and well;" what more could a tailor expect? He was subjected to eleven months of unnecessary suffering; what less could he expect from the skill and attention of a hospital surgeon?

We were about to observe, that we had never met with anything parallel, in point of reasoning and good taste, to that part of our contemporary's defence of Mr. Stanley, which is founded upon the circumstance of the sufferer from the surgeon's unskilfulness, being merely a tradesman; but it occurs to us, that there was a passage in the speech delivered by Mr. Huskisson the other night, on Lord John Russell's motion for the repeal of the Corporation and Test Acts, which may serve as a *pendant* for RODERICK MACLEOD's vindication of Mr. Stanley. Mr. Huskisson sneered at the policy of relieving the consciences of dissenting excisemen, while the first Duke in the realm continued subject to civil disabilities, on account of his religion. The reasoning of the Colonial Secretary may be regarded as an extension of the principle assumed by Roderick Macleod. Roderick professes a rational and humane contempt for the bodily suffering of tradesmen, as compared with those of persons in the higher grades of society. Mr. Huskisson's argument advances a step further; for, it goes to the denial of a principle, which we are commonly taught to consider indisputable, namely, the equality of men's souls. Why, says the Doctor, should a hospital surgeon be persecuted for maiming, or maltreating a tailor? Why, says the Statesman, when a Duke's religious scruples are not respected, should the legislature demean itself, by making provisions for the salvation of an exciseman?

The Morbid Anatomy of the Brain. By Alexander Monro, M.D. F.R.S.E., Professor of Anatomy and Surgery in the University of Edinburgh. 8vo., pp. 183. Vol I. Hydrocephalus. Edinburgh, Maclachlan and Co. 1827.

The author of this volume has already given ample evidence of his zeal and industry in the cause of medical science. His work on the Morbid Anatomy of the alimentary canal, and the admirable collection of the preparations of morbid parts with which he has enriched the Museum of the Edinburgh University, are sufficient grounds for the work which is now before us claiming the attention of his professional brethren. The present volume contains an account of the pathology and treatment of hydrocephalus; and our author proposes to dedicate a subsequent volume to the history of apoplexy, epilepsy, and mania, and to the effects of injuries of the head.

Before proceeding to the subject of hydrocephalus, he has offered some useful remarks on the importance of the study of morbid anatomy, with a view to the accurate knowledge of physic and surgery, and has represented it as " one of the primary foundations of all medical science." Without an intimate acquaintance with the morbid changes that take place in the human frame, as the causes or the effects of disease, Dr. Monro has stated his conviction, that the practice of physic and surgery can be directed only by ill founded hypothesis or blind empiricism.

The work is divided into two Parts. The first contains some general remarks on the effusion of a fluid within the head; on the physical and chemical nature of that fluid, on its different seats, and on the concomitant organic derangements. These various and important subjects constitute the basis of his subsequent reasonings as to the origin, prognosis, and method of treating hydrocephalus.

In the Second Part, the author has considered the various forms of hydrocephalus, their symptoms, prognosis, and method of treatment. It is not our intention to give any detailed analysis of the facts and reasonings contained in this work; we shall rest satisfied with merely having pointed it out to the attention of those who are engaged in the study of the pathology of the human brain, and to the profession at large, as containing all the more important facts, of which we are now in possession, relating to hydrocephalus.

The following observations are original and interesting, on the natural consistence of the brain:—

> " The most favourable opportunity which can be presented for gaining an exact knowledge of the state of the brain of a healthy person, is that which is supplied by the examination of the brain of a criminal, who had forfeited his life to the violated laws of his country, when in the prime of life and health."

Several such favourable opportunities have presented themselves to Dr. Monro, and the following is the account of the appearances he has witnessed:—

> " The brain, when in a very recent state, is of a purplish brown colour, and somewhat elastic; it is firm to the touch, and may be divided into thin slices, without any part of it adhering to the knife, and may be stretched to a certain degree without tearing. But when the brain has been exposed to the air for an hour, or an hour and a half, or when examined after the lapse of twenty-four or thirty hours after death, even although death has not been occasioned by disorders which affect the nervous system, the brain is soft, readily torn, and a portion of it adheres to the knife, unless the knife has been previously dipped in oil or water, and it falls to pieces on being slightly stretched."

The consistence of the brain of all criminals is not uniform. In the case of a pirate which a few years ago attracted much notice, and who was a young, stout, and active man, the brain was softer than usual, though it was examined only two hours after death.

The result of his investigations, as to the consistence of the brain of those who have died from hydrocephalus, is that, generally, it is neither harder nor softer than in the healthy state. Dr. Monro's observations on this point are, however, at variance with those we have had occasion to make, in the examination of a large number of cases of acute hydrocephalus, where the fornix thalami, &c., were sometimes so soft, as to be almost reduced to a pulp.

Dr. Monro does not conceive that inflammation invariably precedes effusion into the brain, as water has been often found in the ventricles, where no symptom of inflammation had preceded death; and it has often been discovered in the fœtal brain, where no increased vascularity was perceptible in the cerebral mass, or its membranes.

From the cases which have come under his notice, he has also been led to infer, that effusion, to a considerable extent, may take place within the head, and be accompanied too with organic disease of the brain, and yet no symptom during life be present, to mark the existence of such a condition.

Dr. Monro has not overlooked the deranged state of the digestive system, and the treatment to be pursued in the early stages of hydrocephalus. With the observations of Dr. Scoutetten, of Metz, on the sympathy between the pia mater and mucous membrane of the intestines, he is disposed fully to coincide.

According to his observations, all the parts of the alimentary canal do not sympathise to the same extent with the coverings of the brain. He supposes, that there is a greater share of sympathy between the stomach and smaller intestines and the brain, than between the great intestines and the brain. He has also stated, that when the mucous membrane of the stomach, or small intestines, is inflamed, the vessels of the pia mater are distended with blood, so as to form red patches, which is sometimes followed by extravasation; and he supposes, that this view of the subject is calculated to explain many of the phenomena of apoplexy. Thus, from the violent excitement of the stomach being communicated to the brain, there is an increased determination of blood to that organ, and thus the blood-vessels are gradually weakened, and thereby more apt to be ruptured.

EXTIRPATION OF THE WOMB, BY DR. BLUNDELL.

We have, this week, to record the performance of one of the boldest measures in surgery—the COMPLETE EXTIRPATION OF THE UTERUS, *per vaginam.* This formidable operation was accomplished by Dr. BLUNDELL, on Tuesday, the 19th instant, in the presence of Dr. ELLIOTSON, Messrs. KEY, MORGAN, and CALLAWAY; the patient, a woman upwards of forty years of age, was affected with cancerous disease of the womb: she bore the operation (necessarily tedious and painful) with great fortitude—not more than six or eight ounces of blood were lost, and no ligature was applied.

On the eighth day after the operation, the date of this notice, the woman is, in every respect, doing well, very little constitutional irritation having supervened.

METHODS OF ASCERTAINING THE PURITY OF THE SULPHATE OF QUININE.

In the present number of the *Annals of Philosophy*, there is an interesting and valuable communication from Mr. Richard Phillips, on the means of ascertaining the purity of the sulphate of quinine. In consequence of the great consumption of, and demand for, this invaluable medicine, it has attained a high price, hence it has been adulterated in various ways, by those who do not hesitate to sacrifice the health and lives of their fellow-creatures, at the shrine of cupidity.

After remarking that pure sulphate of quina has the form of minute fibrous crystals, is inodorous, has a bitter taste, and that if starch and sugar be mechanically mixed with it, they may possibly be detected, by inspecting the preparation with a glass. Mr. Phillips makes the following statements :—

"Pure sulphate of quina has the form of minute fibrous crystals, it is inodorous, and its taste is bitter. If certain vegetable products, such as starch or sugar, be mechanically mixed with it, they may possibly be observed by merely inspecting the preparation with a glass.

1st. If the sulphate of quina be mixed with a considerable proportion of foreign matter, it may probably be detected by dissolving the salt in question in about three hundred times its weight of water,—say one grain in about five fluid drams of boiling distilled water. On cooling, pure sulphate of quina will be deposited in feathery crystals in twenty-four hours, if there be no adulteration.

2dly. As indirect, but as good collateral evidence, the taste of sulphate of quina of known good quality may be compared with that of another sample. Thus, when pure, a grain of sulphate of quina will render nearly a pound and a half of water, or 10,500 grains, sensibly bitter.

3rdly. The alkalies, either pure or their carbonates, if but slightly in excess, always occasion precipitation at ordinary temperatures in a solution of sulphate of quina containing only 1-1000dth of its weight, or less than one grain in two fluid ounces of water.

4thly. A solution of tannin occasions a very sensible precipitate in an aqueous solution of sulphate of quina, containing only 1-10,000dth of its weight of the salt, provided there be no acid in excess. Kino is that form of tannin which best answers the purpose. It is however to be observed, that the salts of morphia, cinchonia, strychnia, &c. are similarly affected by tannin; but they are not likely to be mixed with sulphate of quina.

5thly. Sulphate of quina suspected to contain sugar, gum, or other substances soluble in cold water, may be tried by digesting the same portion of the salt in small and successive portions of water to saturation. If the sulphate of quina be pure, and the solutions all properly saturated, they will have the same taste and specific gravity; and similar portions will yield, by evaporation, equal quantities of solid residuum.

6thly. A repetition of the above process, substituting alcohol for water, answers for extracting resin and some other substances, because sulphate of quina is soluble in alcohol to only a limited extent.

7thly. If a white substance insoluble in cold water be found in the sulphate of quina, heat the mixture to about 170° of Fahrenheit. This will render starch soluble, and its presence may be determined by the addition of an aqueous solution of iodine, which will immediately occasion a blue colour, and eventually a blue precipitate. The iodine should be added in very small quantity.

8thly. Sulphate of quina has been adulterated with ammoniacal salts. These are rendered obvious by adding a little of the suspected salt to a solution of potash. If any ammoniacal salt be present, ammoniacal gas will be readily detected, either by the smell, or by holding over the mixture a piece of turmeric paper, or a bit of glass moistened with acetic acid.

9thly. To ascertain whether sulphate of quina contains any earthy salts, such as sulphate of magnesia or sulphate of lime; burn a portion of it in a silver or platina crucible, or even in a clean tobacco-pipe. Any earthy salt, or any matter indestructible by heat, will of course remain in the vessel.

10thly. To ascertain that the sulphate of quina contains the proper quantity of sulphuric acid and quina, dissolve a little in pure muriatic or nitric acid, and add a solution of muriate or nitrate of barytes: 60 parts should give about 17.3 to 17.4 of sulphate of barytes; or the method may be varied without the trouble of drying the precipitate. Dissolve 60 grains of sulphate of quina in water slightly acidulated with muriatic or nitric acid; add a solution of 18 grains of nitrate of barytes, and separate the precipitated sulphate of barytes by filtering. If nitrate of barytes be now added to the clear solution, it should still occasion slight precipitation, for 60 of sulphate of quina contain 5.8 gr. of sulphuric acid, equivalent to 19.1 of nitrate of barytes.

This test is only to determine that there is no crystallised vegetable matter uncombined with sulphuric acid in the sulphate of quina; the detection of earthy or alkaline sulphates has already been provided for.

11thly. Sulphate of quina should lose not more than from 8 to 10 per cent. of water by being heated till deprived of its water of crystallisation. Mr. Barry informs me that he once examined a sample which contained more than 40 per cent. of water, in excess, diffused through it."

With respect to the comparative purity of the French and English sulphate of quinine, speaking generally, we cannot state anything decisive; the samples of each, which have been forwarded to us for the purpose of examination, we find to be perfectly pure. The most common mode of sophisticating this medicine, we believe, is by the admixture of sulphate of magnesia, or some ammoniacal salt, which are substances readily detected: the presence of any extraneous vegetable matter, we apprehend, is with difficulty ascertained. It seems, that there is now a competition between the English and French manufacturer of quinine; the latter having enjoyed, until lately, the almost entire monopoly of the article. With every feeling of patriotism, and good wishes towards the English manufacturer, we cannot avoid expressing our doubt that he will be undersold by the French, owing to the cheap rate at which the latter obtains his materials. The cinchona and rectified spirit are purchased in France, if we are informed correctly, at less than half the price paid in England: three pounds of bark will yield one ounce of sulphate of quinine; and if the price of bark, in France, should amount even to three shillings and sixpence per pound, the salt will cost, in its manufacture, thirteen shillings and sixpence per ounce. To this must be added, the expense of bottles, carriage, and agency for its sale; yet, notwithstanding all these, the French manufacturer can afford the article at a lower rate than it can be made at in this country, as may be clearly shown by estimating the price which the cinchona and spirit of wine bear in England.

The two principal manufacturers of quinine in France, are Marchand and Delone; the former, in conjunction with Caventon, and the latter with Pelletier, both of whom, it will be remembered, the Academy honoured with a reward for the discovery of the medicine.

ON DIABETES MELLITUS.

BY DR. AYRE.

To the Editor of THE LANCET.

SIR,—I observe, in your publication of the 23d instant, a report is made of the discussion which took place at the Westminster Medical Society on the previous Saturday, and that, in that report, a gentleman is represented as being at issue with me upon some points connected with the case which I detailed to the meeting. The ink of your publication, however, was scarcely dry, when that gentleman very handsomely gave at the next meeting an apologetic explanation of the part which he had taken in the discussion, and which was not more honourable to him, than satisfactory and acceptable to me; and had the rules of the Society permitted me to add my own to his explanation, and a report of them both been published in your journal, my further concern about the matter might have been spared. As the point, however, stands, the interests of truth, and the claims of fair discussion, require of me a more detailed exposition of the facts than were given in your work, as serving to elucidate the pathology of the disease of diabetes mellitus, and as explanatory of the means successfully pursued by me in its treatment. I shall now, therefore, relate the history of my patient's disorder, as given in an account drawn up by himself, and delivered to me, with the fullest permission to publish it. To this account I annex a diary kept likewise by himself during twenty-four days, with observations on the changes and progressive improvements which took place in his disease, carrying the account, as it will be seen, up to the 7th of January, when I considered him, and he considered and reported himself, as nearly, if not entirely, well. The following is the account which he gave:—

"About the 4th or 5th of May 1827, I arrived in Ireland to rejoin my regiment, from leave of absence spent in England, and, with the exception of having walked about London a good deal the day previous to my departure for Ireland, I cannot recollect having used any great bodily exertions sufficient to cause indisposition. However, on my arrival in Ireland at the town of Mullingar, I experienced an unnatural thirst, and, contrary to my habits, frequent evacuations, during the night particularly, when I used to arise from bed three or four times for that purpose. I did not then take particular notice of the quantities I either ate or drank, but from recollection, imagine I must have drank upon an average 12 or 14 pints per day of cider, buttermilk, soda water, &c.

My appetite used likewise to be rather voracious. I attributed my thirst to want of exercise, and, in consequence, used to take very long walks and rides, notwithstanding which, and my utmost struggles to prevent it, I felt considerable languor and weakness, accompanied with restlessness and great nervousness. About the 24th of June I went to the lakes of Killarney for a fortnight; and both on my journey there and back, as well as during my stay, my thirst increased dreadfully. I have frequently had to stop the coach and to call for water, milk, or any fluid I could get, by the road; and, when on the lakes, I always had a glass, and used to drink large quantities of lake water. My thirst even increased in August and September, and two or three times I recollect having measured the quantity which I drank, and it amounted to 24, 26, and 28 pints, and I evacuated as much as 32 or 34 pints, when, the greatest evacuation taking place at night, I used to sleep very little, being annoyed likewise by cramps in the calves of my legs, and swellings of the veins both of the calves, ancles, and insteps. My mouth used to become so intolerably parched, that for longer than five minutes I could not abstain from drink; nor would small quantities of fluid suffice; for when I raised a vessel to my mouth for the purpose of drinking, a sort of phrenzied eagerness hindered me from ceasing, until I had exhausted all the fluid in the vessel, amounting sometimes to three pints at a draught. In this state I continued until about the 6th of November, my thirst having in that period abated only in a very trifling degree. The medical gentleman whom I consulted in Ireland, either attributed my disease to an affection of the liver, or a disordered stomach. On the 6th of November, 1827, I had the good fortune to consult Dr. Ayre, of Somerset Street, Portman-square, and, in compliance with his wishes, kept the following diary, which will show the quantities I ate and drank and evacuated, as well as the number of hours which I slept; the dates of cupping, as well as my weight, &c. I must add, that my weakness on my return to London was such, that I could scarcely walk half a mile without experiencing extreme exhaustion, and my flesh had fallen away to that degree, that my carcass appeared nearly like that of a skeleton. I used frequently to feel exceedingly giddy, and my gums were in the habit of bleeding and detaching themselves from the teeth. The thirst had, in some measure, abated before I reached London, and my appetite very much. The quantity I eat is put down in ounces, and the quantity drank and evacuated, in pints."

Such were the symptoms of my patient, as detailed above. In proceeding to the treatment, I acted upon the view which I have long entertained concerning the nature of this disease, and which is, that there exists an exaltation of the vital action of the secretory vessels of the kidneys, analogous to inflammation in other structures, and occasioning the saccharine condition of the urine, the absence of urea and the other component parts of that secretion, as found in its healthy state; whilst the inordinate appetite and thirst are but secondary effects resulting from the sympathy subsisting between the kidneys and stomach, and, probably, from the waste of fluids, and of the nutritive principles of the blood, which the thirst and appetite, by their indulgence, are meant to repair. The dryness and unperspirable state of the skin, the clamminess of the mouth and fauces, and the costiveness of the bowels, are explicable on that well known law on the animal economy, that inordinate secretion in one tissue, occasions a correspondent diminution of it in others; whilst the nervousness, the vertigo, the imperfection of vision, the muscular debility, and the other symptoms of general atrophy, are attributable to the daily loss sustained by the system, from the abstraction of the nutritive principles of the blood. Nor are these views, which are those, indeed, now generally entertained by the pathologists of the continent, invalidated by the fact, that traces of disease are sometimes not found in the kidneys of patients who have laboured for some time under diabetes, but who die of pulmonary or other affections superinduced upon it, for in these cases the diabetes has been a remote cause of those diseases which supervened upon it, and which has itself yielded to this secondary affection, affording an example of what has been termed the conversion of disease. Considering, therefore, that the proximate cause of the disease consisted in an increased action of the secretory vessels of the kidneys, it appeared to me proper to attempt to subdue that increased action, as a principal indication of cure; and to abstract blood from the loins by cupping, as best calculated to fulfil that indication. I was not unaware of the partial benefit which has been found to arise from the use of animal diet in this disease, and which has, undoubtedly, been useful, as affording principles least stimulant to the kidneys; but I was anxious to determine the full power of the treatment by cupping, which I was about to adopt; and that my conclusions respecting that power might not be disturbed by any doubts, produced by a blending of various means together, I therefore directed the patient's diet to consist of the ordinary proportions of animal and vegetable food, with an abstinence from fermented liquors and acescent fruits, giving him no more medicine than ten grains of the compound powder of ipecacuanha nightly, with castor oil when necessary. Having ascertained the existence of saccharine matter in the urine, by producing a copious fermentation, by the addition to it of a tea-spoon full of yeast, I directed him to lose fourteen ounces of blood by cupping from the loins, and to keep a diary of the quantity of food eaten, and of the fluid drunk and evacuated. The following is a verbatim copy of it :—

Days.	Eat.	Drank.	Evacuated.	Slept	
	Ozs.	Pints.	Pints.	Hours.	
1	12	12	17	7	Took two pills.
2	12	7	8	9	Lost 13 ounces of blood by cupping; weighed eight stone ten pounds before cupping.
3	14	5½	6½	8	
4	15	5½	6	8	
5	17	5	6	8	Lost 16 ounces of blood by cupping.
6	24	4½	5½	9	
7	21	4½	5	—	
8	23	5	4½	—	
9	23½	4½	4½	—	
10	22	4	4	- -	Up to this period have slept on an average eight or nine hours. The cramps have quite left me, and I never rise in the night.
11	25	4	3½	—	
12	20½	3½	3½	—	
13	26	4	4	—	
14	25	3½	3½	- -	Discontinued my pills.
15	24	3½	3½	- -	Lost eight ounces of blood by cupping.
16	23	3½	3	- -	Weighed, gained 3½ pounds, allowing for blood lost.
17	24	4	3½	- -	During this period my gums ceased bleeding, and my sleep became uninterrupted.
18	22	4	3½		
19	24	3½	4		
20	23	4	4		
21	25	4	3½		
22	24	3½	3½		
23	22	4	4		
24	23	4	4	- -	This day I weighed 8 st. 10½ lbs., and, although I feel a slight thirst after my meals, yet it is not inconvenient, and my strength is much improved.

To the foregoing diary and observations of my patient, I have to add, that a striking improvement immediately ensued, and was maintained after each cupping, particularly in his feelings, as he felt, after each operation, more and more relieved from that oppression upon the spirits, and that semi-beclouded state of the intellectual faculties, which are so characteristic of this disease. From the time when this diary closes, there was the same progressive advancement towards full recovery; he took his ordinary exercise, mixing freely in society, and partaking of its amusements. Between this time and the 7th of January, he was cupped twice, and, at the latter period, he delivered to me the following report :—

Since the 12th of December, I have been gradually gaining strength, my sight having quite recovered, and very slight inclination left towards thirst. From about the 24th of December, I observed my urine to become much darker than it has been for many months, and that it deposits a dark brown sediment. A flatulence, to which I have been subject for some time, with scarcely any offensive smell, has latterly been accompanied with a strong fœtor. On weighing, on the 5th of January, I found my weight increased half a pound since I was last weighed.*

Up to this period the patient had been under my sole care, and had followed, with tolerable strictness, the whole of my instructions. Indeed, I had considered, that for some time previous to this, little more was wanted than the common caution, of avoiding the ordinary causes of disease, to complete and secure his entire recovery. I apprised him, however, of the tendency there was to relapse, and of the propriety there would be in recurring to occasional cupping, as preventive, or corrective, means. That his cure, however, was nearly, if not fully, completed, is shown by the report made, from time to time, by the patient, and as evidenced by the gradual improvement in all his symptoms; by the rapid diminution of his thirst, and change in the quantity and quality of his urine; by the healthy and perspirable state of his skin, the cessation of the cramps, the firmness of his teeth and gums, the rapid increase of strength, notwithstanding the loss of blood, and the nearly entire restoration of healthful spirits; and that these improved changes, so rapidly produced, were attributable to the cupping alone, may be safely assumed; for nothing but the cupping, of any importance, was employed; and if, for the sake of arguing the point, it be admitted that the patient was recovering, but not recovered by these means, it surely must be conceded, and ought, *a fortiori*, to be believed, that a method of treatment so direct, and so little exposed to misconception, as to its mode of operation, should be able to remove any remaining traces of the disease, since it had proved efficient for the removal of symptoms most characteristic of it. I have already stated, that I abstained from the use of an exclusive animal diet, being satisfied that it was not necessary, and being anxious, at the same time, to strengthen, by this important fact, the views I entertained of its pathology. Indeed, it was from the desire to establish this important principle, that I instituted, for ten days, the trial of an exclusive vegetable diet, and had the satisfaction to find, that no injurious effect was produced by it. Yet, notwithstanding these very obvious, and very conclusive, facts, it was contended for by the gentleman to whom my patient was introduced, a few days before leaving town, that the animal diet which he advised him to use, has been the cause of his subsequent improvement in strength and health; and, even in spite of the further embarrassing fact, that the patient continued to follow the advice I gave him, and has twice been cupped, at his own suggestion, since he parted from me. To conclude; upon the whole, therefore, and after the most dispassionate consideration given to the case, and to the treatment pursued in it, we can deduce, I conceive, no other conclusion than that:

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* I received a communication from my patient, as late as the 14th of January, in which he assured me, that "he had nothing but favourable symptoms to report of;" and he favoured me with a visit on his late temporary return to town, when I learnt that he was gradually increasing in weight, and considered himself to be well.

1st. The disease of diabetes mellitus consists in a morbid excitement of the kidneys, producing, as in analogous cases of excitement in other organs, a depraved or morbid secretion, and which, in that of the kidneys, occasions saccharine matter to be produced in place of those various matters, which are found to constitute healthy urine.

2nd. That the irritation in the kidneys acts sympathetically upon the stomach, and produces the inordinate thirst and appetite, assisted, it is probable, by the demand for supply, which is made upon the system, by that waste of fluid and nutritive principles, which are perpetually passing out of the body by the kidneys.

3rd. That the unperspirable state of the skin, the clammy mouth and fauces, and costive bowels, are the consequences of an inordinate secretion in another tissue; that the debility and other symptoms of atrophy are the effects of the abstraction of the nutritive principles of the blood; and that the disease of diabetes mellitus, is, in its effects upon the system, analogous to other diseases, which occasion, or consist in the withholding or withdrawing of the same principles from the blood, as in excessive or long-protracted lactation, certain states of dropsy, &c.

4th. That the method of treatment suited to remove this disease, must be that which reduces the increased action of the secretory vessels of the kidneys to their natural state; and as the morbid action is of a chronic kind, and purely local, so local is preferable to general depletion: and the exclusive use of an animal diet is not necessary, although a liberal use of it may be proper, as, by being less acescent, it may occasion a less determination of blood to the kidneys, whilst all acescent fruits and fermented liquors, are, in a corresponding degree, improper.

I have the honour to be, Sir,
Your obedient humble Servant,
JOSEPH AYRE.
Somerset-street, Portman-square,
February 29.

ROLFE *v.* STANLEY.

To the Editor of THE LANCET.

SIR,—Having read in Longman's Medical Journal, some very silly allusions relating to this cause, I beg to inform you that the plaintiff is equally dissatisfied with the verdict; and I am desired to say, that a motion for a NEW TRIAL *will not be opposed* upon payment of costs.

I am, Sir,
Your obedient servant,
GEO. VINCENT.
Clifford's Inn, 26 Feb. 1828.

ST. BARTHOLOMEW'S HOSPITAL.

SYPHILITIC IRITIS OF BOTH EYES, WITH PAPULAR ERUPTIONS ON THE LEGS AND BODY.

J. Grant, a small man, of fair complexion, aged 28, was admitted into Henry's Ward, on the 20th October, under the care of Mr. Lawrence. He states that six months ago he had a sore on the inside of the prepuce, for which he took pills which affected his mouth, and in three weeks the ulcer was quite healed. Three months subsequently, he was attacked with pains in his bones, which were severe at night; and in two or three weeks the limbs and body were covered with small pimples, having, as the patient describes, watery heads; the pimples on the legs broke, and formed *blotches*. Eight days ago, the vision of the *right* eye became impaired; and in a day or two he had considerable pain in the eye-ball (more particularly at night,) intolerance of light and lachrymation; and in a few days the left became similarly affected. Small numbers of leeches (five or six) have, at different times, been applied to the eyes, and two days ago he was bled from the arm; these measures, however, have afforded but temporary relief.

October 20. The right eye is highly inflamed; the vessels of the conjunctiva are highly injected, and there is chemosis of its lower half, covering the sclerotic; there is a red zone of vessels around the cornea. The cornea is hazy; the iris is dull, and of a greenish colour; the inner circle more brown than that of the opposite eye, and at its upper and outer part is a yellowish tubercle the size of a small pea; the iris around its base is of a brownish tint, and there are adhesions in this situation to the capsule of the crystalline; the pupil is contracted and immoveable; there is increased sensibility and pain on exposure to light, with copious discharge of tears. Vision is so much impaired that he can scarcely distinguish light from darkness. In the left eye the inflammation is less severe; there is no effusion of lymph in tubercles, but the iris has lost its natural clearness, and there are adhesions at its upper and nasal side; the cornea is dull, and around it is a distinct zone of red vessels; intolerance of light and lachrymation less severe than in the right eye. Last night he suffered great pain in the *eye-balls*, more particularly the right; pulse full, hard and frequent; complains of pain in the head; tongue coated. There are numerous copper-coloured blotches in a state of desquamation on the legs, and several papulæ on the body. V. S. ad ℥xxiv. His bowels having been operated on by a dose of calomel and jalap; he was ordered to take the following pill every eight hours: — ℞. Hyd. submuriat. gr.iii.; pul. opii, gr.$\frac{1}{3}$; M.ft. pil. The extract of belladonna to be applied to the brows at night. In the evening his pulse was hard and incompressible, and he complained of great pain in the right eye-ball; he was again bled to ℥xviii., and 12 leeches were applied to each temple.

22. The pain in the right eye is much diminished; the pupil is largely dilated by the belladonna; at its upper and outer side are adhesions to the crystalline capsule; the inner circle of the iris is less brown; the tubercle of lymph somewhat diminished; the cornea is less hazy, and there is less inflammation of the conjunctiva. The appearance of the left eye is equally improved; there are slight adhesions at its upper and nasal side. Continue the pills and the belladonna.

24. Conjunctival inflammation and the red zone of vessels round the cornea of the right eye, considerably diminished; cornea, clear; iris still adherent at its upper and outer side; inner circle has lost its brown tint; tubercle of lymph much diminished; vision much improved. The left eye has nearly regained its natural appearance, with the exception of the adhesions of the iris; no pain in the eyes at night; mouth is much affected by the mercury. Omit the pills; continue the belladonna.

27. The vision of the right eye is much improved; the tubercle of lymph is nearly absorbed; the adhesions are separating; the eruptions on the legs and body are fast disappearing. Ptyalism severe; continue the belladonna.

November 1. Feels himself quite well, except that the mouth and gums are very sore from the mercury. The irides are quite restored to their natural colour, and vision is perfect. The right pupil is still adherent at its upper and outer side; the adhesions, which are slight, are of a dark brown colour; on the capsule at its lower part, and corresponding to the pupillary edge of the iris, is observed a string of dark coloured spots; and on the lower half of the cornea are seen numerous minute specks which appear to be seated on its internal surface. A slight adhesion still remains in the left eye; two or three brown spots are seen on the capsule; and the internal surface of the cornea presents an appearance similar to that which is observed in the right eye.

ARTHRITIC IRITIS.

Thomas Biggs. ætat. 34, a journeyman baker, was admitted into Henry's Ward, Jan. 30, 1828, under the care of Mr. Lawrence. A fortnight ago the left eye became dim, and was followed in a few days by redness and pain in the ball, which was more severe at night. He continued his usual occupation; and allowed the affection to proceed uncontrolled, until from his being constantly exposed to the heat and vivid light of the oven, the eye had become so acutely painful as necessarily obliged him to leave off work. When admitted into the Hospital, the vessels of the conjunctiva and sclerotic (in the left eye) were highly congested, and the pink colour of the latter, which formed a broad zone round the cornea, was strongly contrasted with the crimson colour of the conjunctiva; the iris, instead of presenting its natural blue, was of a greenish colour, dull, and its pupillary margin appeared thickened. The pupil was contracted and fixed. Vision was so imperfect that he could scarcely distinguish light from darkness. He suffered great pain in the eye-ball and left side of the head, more particularly at night; the pulse was frequent and hard; tongue coated; skin hot. He has been subject to rheumatism, and has had repeated attacks of inflammation in both eyes. The vision of the right eye was tolerably perfect; but there were some brown-coloured adhesions of the iris to the capsule of the crystalline. Eighteen leeches to the left temple; four grains of calomel, and twelve of jalap, immediately. Saline mixture, with drachm doses of liq. antim., and sulphate of magnesia, every six hours. The softened extract of belladonna to be applied over each brow, night and morning.

31. Eighteen leeches repeated. The pupil was largely dilated by the belladonna; it was of a very irregular shape, and the adhesions, which were of a brown colour, and of a triangular form, were seen proceeding obliquely from the pupillary margin of the iris to the capsule of the crystalline.

February 1. Eighteen leeches repeated. Continue the mixture, and the application of the belladonna.

3. The distention of the conjunctival and sclerotic vessels was much diminished; the pink colour of the latter was confined to a narrow zone round the cornea; the iris was more clear, and vision much improved. The pain in the eye-ball and head was considerably less; and his tongue natural. Continue the mixture.

6. Yesterday he had slight increase of pain in the head and eye; he was cupped to 12 oz. from the nape of the neck; the redness of the sclerotic was nearly gone; the iris was clear, and had almost lost its green tint; vision was considerably improved; and the pain in the head and eyeball had left him. There were a few dark coloured adhesions still remaining in the left eye; slight adhesion of the right iris, and on the capsule was observed a circle of brown depositions. Continue the mixture twice a day; and repeat the application of the belladonna.

12. The iris has regained its natural transparency and colour; vision was restored, and he could read a small print. There were a few slight adhesions still remaining. Omit the mixture, and take five grains of the Plummer's pill every night.

17. With the exception of two or three minute adhesions the eye was quite restored to its healthy state, and vision was perfect; he was desirous to leave the Hospital; but Mr. Lawrence advised him to remain a few days longer, and to avoid too early an use of the organ.

ST. THOMAS'S HOSPITAL.

CASE OF GONORRHŒAL OPHTHALMIA.

The following case (still in the Hospital,) presents a striking example of the rapidly destructive progress of inflammation in the eye, produced by the application of gonorrhœal matter:—

The patient, a stout young man, came into the Hospital on the 17th of December, and was put under the care of Mr. Tyrrell, the account which he gave was, that eight days previously, being at play with a companion, some urine was thrown upon him, part of which entered his right eye. The person who had passed the urine was affected with gonorrhœa. In the course of five minutes, the eye, after smarting very much, became hot and red, and on the same evening, (not more than four hours afterwards,) the eyelids were greatly swollen, and purulent matter was discharged from between them. On the ensuing morning, the left eye was similarly affected with the right, although there had been no application of gonorrhœal matter to it, as far as the patient could ascertain. He remarked, however, that after the right eye was affected with purulent discharge, he incautiously rubbed the opposite eye with the hand employed in wiping away the matter.

The only means of relief which the patient sought, was by application to a druggist, who recommended poppy fomentation and blisters to the temples, which measures were complied with. When admitted, the violence of the disease had in some measure spent itself; the right cornea was sloughy to a considerable extent, and the left partially so. There was excessive chemosis, both of the palpebral and ocular conjunctiva, and intense redness. Blood-letting, *ad deliquium*, was immediately had recourse to, and repeated in the evening. A brisk purgative of colocynth and calomel was administered, and the poppy fomentation, with alum, used as a local application. The inflammation was subdued under this treatment; the further sloughing of the cornea checked; the part already gangrenous separated, leaving the greater portion of each cornea in an opaque and spoiled condition. Five days after admission, the proportion of alum was increased in the fomentation, and two days afterwards, leeches were applied; these constituted the principal means employed until the 7th of January, when the use of a solution of lunar caustic was resorted to, in the proportion of two grains of the salt to an ounce of water,

This remedy was continued until the 20th of February, the date at which this report was concluded, when the condition of the eyes was given as follows:—In the right, there is evidently a destruction of the inner and upper third of the cornea, the breach being occupied with a black substance—the iris; the cornea to some extent around is opaque, the lower part of this membrane tolerably clear. The power of vision in this eye only amounts to the bare perception of objects. In the left eye the cornea has become flattened, and there is a dense opacity situated obliquely over the centre of vision: on the side of the inner edge of the pupil, the cornea is partially destroyed, the space being filled by points of the iris, which is adherent to some extent. The power of vision in this eye is somewhat greater than in the opposite.

The only operations performed at this Hospital for some time past, are amputation of the thigh, in consequence of scrofulous disease of the knee-joint, by Mr. Green, and amputation of the thigh, in a case of non-union of the femur,* &c. The lateral flap operation (with a slight modification) was adopted, and the patient to the present time, (Feb. 28,) is going on well.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

DISEASE OF THE PAROTID GLAND.

The following case is particularly worthy of notice, as it affords an excellent example of a disease affecting, apparently, the whole substance of the parotid gland; a case occurring so rarely, that those engaged even in extensive practice, have seldom seen it in a diseased state:—

A groom, 29 years of age, was sent to this Hospital by Mr. Noughton, of Kettering, on account of a very large tumour in the site of the parotid gland of the left side. The swelling fills up entirely the space between the internal ear, mastoid process, and ascending ramus of the lower jaw, and extends over the face as far as the first grinding tooth. It is of an incompressible and almost stony hardness, and adheres so firmly to the subjacent parts, as not to admit of the least motion. Its surface is irregular and knobbed, but the skin, which is of its natural colour, does not adhere to the tumour. The motion of the jaw is so limited, as not to admit of his front teeth being opened much beyond half an inch. The ramus of the jaw appears to be implicated in the disease, as it can be felt from the inside of the mouth very much enlarged. He occasionally suffers a good deal of pain from this tumour, but his general health is perfectly good. The account which he gives of the origin of the disease is, that sixteen years ago he received a blow from the lash of a whip under the lobe of the ear, and that soon afterwards a small immoveable tumour made its appearance on that part, and remained about the size of a hazel nut for several years. Five years ago it began to get painful, and to increase in size; and, within the last six months, its progress of enlargement has been very rapid.

This case affords, if one were wanting, an excellent proof of the impracticability of extirpating the whole of a diseased parotid gland, an operation which the late Mr. John Bell pretended to have accomplished. "Whoever has injected with mercury the salivary duct in situ," says the late Mr. Allan Burns, "and then, even where the gland was healthy, free from preternatural adhesions, and limited to its natural size, has tried to cut it out, would be convinced, when he saw the mercury running from innumerable pores, that the gland extends into recesses where he could not trace it in the living body. If this be true in health, what must it be in disease, where the parts are wedged between the angle of the jaw and the mastoid process, and nitched into every interstice around. On the dead subject I have attempted the extirpation of such tumours, but have never succeeded in clearing away fully the diseased substance. Those who assert that they have extirpated the parotid gland have, I am fully convinced, mistaken that little conglobate gland, which lies embedded in its substance, and which does sometimes enlarge, producing a tumour in many respects resembling a diseased parotid, in the parotid itself." If we may credit the assertion of Mr. Charles Bell, we must believe that his brother, assisted by himself, actually accomplished this impossibility. (See Burns's Surgical Anatomy of the Head and Neck, p. 293.)

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* For a copious detail of this case, see the report of the London Medical Society in the present Number.

CASE OF ENCYSTED TUMOUR IN THE NECK, REMOVED BY AN OPERATION.

An unmarried woman, in the 26th year of her age, has a tumour projecting from the anterior part of her neck, a little below the laryngeal cartilages. It is the size of a small apple, and its surface is rather irregular; it has a firm elastic feel, and is readily moveable upwards and downwards, as well as laterally; and the skin, which is of its natural colour, lies very loosely over it. There is one of the cervical glands, on each side of the neck, considerably enlarged, but these are at some distance from the tumour.

The history which the patient gives of this swelling, is not very distinct; but the facts seem to be, that about sixteen years ago, some of the cervical glands on both sides of the neck were very considerably swollen, and a few years afterwards she perceived the commencement of the present tumour, the bulk of which has since been gradually increasing, while the size of the swelled lymphatic glands has gradually diminished. Of late, the increase in the bulk of the tumour has been such, as to create, notwithstanding the use of a variety of internal, as well as external, remedies, great discomfort. She chiefly complains of difficulty in breathing, which is so much increased by the alteration of the position of the head and neck from the erect posture, that she is unable to follow her employment as a servant.

In this state Dr. Leman, whom she last consulted, advised her to have the tumour extirpated, for which purpose she was admitted into the Hospital. Mr. Wardrop solicited Mr. Lawrence's opinion, on the necessity of extirpating the tumour. Its removal by an operation was warrantable, as it did not appear to be one of those cases of diseased thyroid gland remediable by medical means, but was, probably, an encysted tumour lying in close contact, but not involving the structure of the middle lobe of that gland. This opinion was chiefly founded on the great mobility of the tumour on the trachea. Had it been a swelling of the middle lobe of the thyroid, no such mobility would have existed; for, even in the natural state, that portion of the gland encircles and lies in close apposition with the anterior part of the windpipe. When it becomes enlarged, its contiguity with the trachea becomes still closer, the trachea is almost encircled by it; and hence, in such a case, the tumour, instead of being moveable and globular, has a flattened form, and appears to be immoveable, and adhering to the trachea.

Operation.

An incision, of the form of a T, was made through the integuments down to the capsule of the tumour. From the great looseness of the cellular membrane, the integuments were with facility dissected from the cyst, except at its posterior portion, where it was found to lie in such close contact with the isthmus of the thyroid gland, that Mr. Wardrop deemed it more prudent to remove a small portion of that gland along with the tumour, rather than endeavour to dissect the tumour from the gland. No vessel, of any consequence, was divided, until the gland was cut.

Mr. Lawrence now tied two arteries which bled profusely. On examining the tumour, and a small portion of the thyroid gland, which was removed with it, there did not appear any intermixture of their structures, but they were merely in contact; and so closely did they adhere, that had the operator attempted to dissect one from another, either the gland must have been wounded, or the cyst opened, as at this part its parietes were very thin.

On dividing the tumour, after its removal, it was found to consist of a firm capsule, from which passed off various partitions, forming cavities of different sizes. These were filled with a dark coffee-coloured fluid; and in one, which was of considerable size, pieces of hardened blood were intermixed with the fluid. Mr. Wardrop compared this tumour with one which he had removed some weeks before from the neck of a female immediately below the angle of the jaw, which tumour had not been divided until it had been put into spirits; and though rather larger in bulk, yet, in external characters, resembled the tumour which had been removed from the present patient.

The resemblance of the internal structure was also very remarkable; the colour of the fluid contained in its cells, was changed by the immersion in the spirits; but the cellular structure itself, and the cyst itself, being hardened by the spirits, retained their form. A small portion of the lower lobule of the parotid gland had been removed along with the tumour in this case, from the circumstance of its being in close contact with the cyst, in like manner as the thyroid gland was found in the present patient in contact with the tumour, which circumstance illustrates the important pathological fact, that, in the one instance, the parotid gland had no share in the disease, nor the thyroid gland in the other, as it is scarcely possible to conceive that two encysted tumours, so precisely resembling each other, in external and internal characters, should be formed in glands differing so much in their structure, as their parotid and thyroid.

In consequence of the lips of the wound having been kept together with ligatures, blood was effused in the very loose cellular tissue, so as, in an hour after the operation, to distend the skin, and form a swelling as big as the original tumour. The ligatures were therefore cut out, the wound cleared from clotted blood, which was found to proceed from several small vessels on the divided surface of the gland; the bleeding was arrested by the introduction of a piece of sponge, on which moderate pressure was, for some time, applied. Two grains of opium, with six of calomel, were now exhibited, and the patient had an excellent night, and no febrile symptoms supervened. The wound, instead of adhering, has, consequently, undergone a process of suppuration, and the sponge was removed on the second day. The portion of cellular membrane, into which the blood was effused, has sloughed.

CASE OF DISEASE OF ONE OF THE LOBULES OF THE PAROTID.

The following case exemplifies an interesting pathological fact regarding the parotid gland, which is, that, like the mammary, and other conglomerate glands, only one of the lobuli may be diseased. It is well ascertained, that in the female breast, during lactation, it not unfrequently happens, one of the lobuli of that gland becomes swelled; the swelling being produced in consequence of the retention of the milk which it has secreted. In the following case the affection of the parotid appears analogous.

A female, 45 years of age, applied on account of a tumour about the bulk of a hazel nut, situated on the cheek, a little anterior to and below the ear, which tumour had formed suddenly, on the morning of the same day, and which, she stated, would in the course of a few hours as quickly subside. For some years past similar swellings have formed and disappeared in like manner, and when they have subsided she has always perceived the sudden escape of a watery fluid into the mouth. Mr. Wardrop has met with an analogous case, in which the swelling of one of the lobuli of the parotid comes on suddenly, from particular substances taken into the mouth, and where the swelling subsides by a discharge of saliva, and has, on some occasions, been followed by a good deal of inflammation.

GUY'S HOSPITAL.

WARTY CANCEROUS TUMOUR ON THE BACK OF THE THIGH.—OPERATION BY MR. MORGAN.

——, ætat. 58, a man of unhealthy appearance, was admitted into Job's Ward, under the care of Mr. Morgan, on account of disease of the upper and back part of the left thigh. He stated, on admission, that his general health, until within the few preceding months, had been tolerably good; he had, however, been subject to glandular swellings and blotches on the skin, which he attributed to scrofula, the disease being, as he considered, inherited from his mother. A large blotch had existed on the back part of the thigh for many years, covered more or less with scales of dry cuticle, and productive of no pain or inconvenience, until, at length, a scab formed; this eventually separated, when an ulcer was left, which gradually went on spreading. The patient further said, that he had suffered much mental anxiety, on account of pecuniary losses, which had reduced him below the means of obtaining many comforts to which he had been accustomed.

It was found, on examining the thigh, that there was a hard warty excrescence commencing immediately below the left nates, and reaching to a considerable distance down the limb, being of the size of a large orange flattened. There was scirrhous hardness in the surrounding integuments, and discolouration of the skin at the part immediately above the tumour: the mass consisted of hard warty granulations, and in the centre was an opening, equal in size to the top of the little finger, and discharging freely an ill-conditioned and offensive matter. The part itself was not painful, but lancinating pains were occasionally felt down the thighs and leg.

Mr. Morgan having expressed his opinion that the disease was of a malignant nature, proposed an operation for its removal, to which the man assented, and it was accordingly performed on Tuesday, the 18th of February. The operation consisted of making an incision through the integuments, round the swelling, and then fairly dissecting the tumour out: it was found to be firmly connected to the fascia, and it was deemed advisable to cut away a portion of muscle.

CASE OF SCIRRHOUS TUMOUR, AT THE UPPER PART OF THE PUDENDUM.

The subjoined case, still remaining in the Hospital, may be considered interesting in conjunction with the preceding, as tending to confirm the opinion, that cancer attacks the various textures of the body almost indiscriminately, its ravages not being confined to glandular parts alone.

M. M., æt. 47, a woman of sallow complexion, was admitted into Martha's Ward on the 17th of November, under the care of Mr. B. Cooper. She has borne nine children, and her menses ceased a short time previously to coming into the Hospital; family circumstances have distressed her mind greatly within the last two years. The disease consists of a very firm irregular tumour, of the size of a double fist, situated at the lower part of the abdomen, occupying the mons veneris, and extending some distance into each labium; it is of "stony hardness," and is firmly attached to the parts beneath. The skin covering the swelling, is of a purple or livid colour, and there are numerous small openings, from which a sanious, and, in some instances, a milky fluid, is discharged. There is no glandular enlargement to be distinctly ascertained in either groin, but pressure at this part, and to some distance up the abdomen, occasions much pain, leading to the impression, that the deep-seated glands are implicated. Lancinating pains are frequently felt in the tumour, and they extend to the loins.

The account which the patient gives of the origin of the disease is, that about twelve months prior to admission, she discovered, by accident, a hard tumour of about the size of a nut, in the upper part of the right labium; it remained stationary for five months, occasioning no pain, when it began to enlarge, became painful, and continued to increase to the date of application at the hospital. A *surgeon* made an opening into the swelling with a lancet, and a small quantity of blood flowed from the orifice.

Since the patient's admission, the disease has certainly become much aggravated. It was decided at first, that owing to the connexion which the tumour had formed with the surrounding parts, an operation for its removal was inadmissible. Palliative means alone have been employed, and the woman continues, at present, in Martha's Ward.

OPERATIONS.

In addition to the removal of the cancerous tumour, in the case related above, Mr. Morgan performed the operation of castration on the 19th, in consequence of lipoma of the testicle; and Mr. Bransby Cooper amputated a leg on the same day, under peculiar, and rather *ludicrous*, circumstances.

ST. GEORGE'S HOSPITAL.

On Thursday last, Mr. Brodie "*did* the operation"* of tying the external iliac artery, in a case of aneurism of the upper part of the femoral artery. The patient is a middle aged man; and the tumour, which was of the size of a goose's egg, had been perceptible about four months; an oblique incision was made, in the manner recommended by Mr. Abernethy, and one ligature was passed round the vessel. The pulsation of the swelling was instantly checked on tying the artery, and also pain of the limb, which had previously formed a prominent feature of the case.

MR. GILL OF LIVERPOOL—EXHUMATION OF BODIES.

On Friday, Feb. 8, the trial of Mr. Gill came on at the quarter-sessions at Liverpool, the Rev. J. Brooks, chairman. Mr. Gill, together with a person named John Stewart, was arraigned on an indictment, which charged them with having raised and carried off the body of a young female, from Walton church-yard. **Stewart** was acquitted, no evidence being adduced that he was the person who stole the body; but Mr. **Gill** was found guilty of having it in his possession, on the day after the exhumation took place, and fined thirty pounds. Small as the fine may be considered by some, and indicative, as it may be regarded, of the improved state of public feeling on the subject of dissection, we cannot but lament that the Court, with the member of a liberal profession at its head, should not have looked even with more lenient eyes on the situation of a highly respectable professional gentleman, and have shown that, under the existing state of things, the mode which the defendant had taken to prosecute the study of anatomy, was the only one he could adopt.

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* Such is the "eminent" surgeon's phraseology—or take the following as an example, from a lecture recently delivered: "Gentlemen,—A man came to my house, *making water in a small stream.*"

In Mr. Gill's case, where no evidence was adduced that he had exhumed the body, or even been concerned in its exhumation, the Court might have allowed him to escape unfined. In this city, it not unfrequently happens that bodies actually in the progress of dissection are claimed; but the teachers in whose possession they are found, are not dragged before the public, and exposed to the inconvenience and annoyance of a prosecution; the body is given to the claimant, if a right in it be shown; after which, the Magistrates feel very reluctant to press the matter further. The Magistrates of Liverpool would have shown their regard for science and professional character, if, on this occasion, they had imitated the example of London Magistrates.

Mr. Gill's address to the Jury contains some sensible observations on the importance of anatomy, the force of which will, we trust, be felt and appreciated by the inhabitants of Liverpool, who are deeply interested, as is every other portion of the public, in the diffusion of efficient professional knowledge.

DIVINE MODE OF CREATING M.D.'S.

The Most Reverend Father in God, the Archbishop of Canterbury, has been pleased to confer the honourable title of M. D. on Charles Clarke, Accoucheur and Bat. This distinguished personage is now denominated by the ladies, the Divine Doctor.

Mr. R. Phillips, Lecturer on Chemistry at Mr. Grainger's theatre in the Borough, recently delivered his farewell address to the pupils, on which occasion he was presented by Mr. Scrivin, in the name of the class, with a superb snuff box, as a mark of respect for the manner in which the duties of his department have been uniformly discharged. Mr. Phillips has been succeeded by Mr. J. T. Cooper, whose talents as a practical chemist and teacher, cannot fail to ensure for him that success which he so pre-eminently deserves.

FRAUDS BY HOSPITAL PATIENTS.

To the Editor of The Lancet.

Sir,—Knowing you to be an exposer of abuses, in any way connected with the medical profession, is the reason I trouble you with this communication.

The facility with which medicines can be obtained at the Hospitals, induces out-patients with ague, to continue attendance long after their health is established, that they may *retail* those medicines to others; this practice has been continued for some time, perverting the objects of charters, and infringing the rights of general practitioners.

Showing you the evil, and hoping a remedy will be found,

I am, Sir,
Your obliged servant,
C. P.

P. S. The decided effect, mild operation, and price of quinine, are also incentives to this fraud.

Dartford, Feb. 10th, 1823.

TO CORRESPONDENTS.

Communications have been received from Mr. Wilmott — Mr. Pendergast — Mr. Harmer —Dr. Forster—An Old Apothecary—A Member of the Westminster Medical Society—Mr. R. J. Culverwell—An Indignant Accoucheur—A General Practitioner—A Hater of Bats—Sawney Macleod — A Medical Student—Mr. Slight—Mr. Williams—Mr. J. I. Evans—Mr. Weiss—Juvenis.

The Letter of Mr. T. H. Smith is left at the office.

The substance of Mr. James's Letter was inserted in our last Number.

"Constant Reader" has our thanks.

THE LANCET.

Vol. I.] LONDON, SATURDAY, MARCH 8. [1827-8.

STATEMENT OF DR. FORBES,

RESPECTING

MR. GUTHRIE'S ACTION AGAINST THE LANCET—THE LATE DUEL, &c.

(*Copy.*)

To prevent the effects of the misrepresentations which have been too widely circulated, and, in some instances, too easily believed, on the subject of the differences between Dr. Forbes and Mr. Guthrie, respecting the late legal process of the latter against the Editor of The Lancet, Dr. Forbes, in pursuance of the advice of his friends, and that the truth of the circumstances may be known to the profession, thinks it right to make public the following statement of facts, as well as the accompanying correspondence, on the subject.

Nearly a year ago Dr. Forbes heard, from several persons, that some pupils of the Eye Infirmary had expressed themselves very freely at the mode in which the business of the Institution was conducted, and had complained of the hurried manner in which the patients were attended. He mentioned these reports to Mr. Guthrie, and expressed his fears that some public animadversion might be the consequence of these rumours; at the same period, he likewise expressed his opinion, that "stimulating applications to the eye were too indiscriminately used, and not a sufficient attention paid to the constitutional treatment in the practice of the Infirmary." This subject was too often adverted to by Dr. Forbes and Mr. Guthrie for the latter to have forgotten it; and the same opinion was expressed both to pupils and others, so that these sentiments of Dr. Forbes were well known.

Some time after this, in consequence of Dr. Forbes having heard it reported that the patients of the Infirmary were treated with harshness, and being himself of the same opinion, he thought it his duty, at the next meeting of the Committee, to make the following statement, which was recorded on the minutes:—

" *Extract from the Minute Book of the Infirmary.*

Royal Westminster Infirmary for Curing Diseases of the Eye, 9, Warwick Street, Golden Square. Monday, 5th March, 1827.

At a Meeting of the Committee held this day, Dr. Forbes stated, That the attendant Davis is extremely negligent in the execution of the duties of his situation, and extravagant in the expenditure of the articles committed to his charge; also, that his rude and boisterous conduct to every one, but particularly to the patients, is highly offensive; that his conduct generally is calculated to bring the Infirmary into disrepute. It has come to Dr. Forbes's ears that some patients have complained out of doors of being treated harshly at the Infirmary. The number of patients attending there has considerably diminished.

I certify the above to be a true extract from the minute-book.

J. Courtney, Secretary."

In The Lancet of Saturday the 26th of May, appeared the following paragraph:—

"The patients of the Westminster Infirmary for Diseases of the Eye, are ordered to attend on Tuesdays, Thursdays, and Saturdays, and though coming from Kilburn, Paddington, Chelsea, and other places in the environs of town, are frequently obliged to return without the sought advice. Dr. Forbes examines about a third of 150 of these poor creatures, the rest are to be seen by Mr. Guthrie, who does not arrive till half past twelve o'clock, and sometimes not at all, and there does not appear to be any efficient house surgeon to act in his absence. It is sad work."

The truth of this paragraph was so apparent to Dr. Forbes, that he immediately called upon one of the Vice Presidents of the Institution, and expressed his regret that Mr. Guthrie should have exposed himself and the Infirmary to be so animadverted upon. On the morning following the publication of this paragraph, Mr. Guthrie wrote a note to Dr. Forbes, requesting him to call in Berkeley Street, for the purpose of making some alteration in the admission ticket of the Infirmary. Dr. Forbes's engagements preventing his calling at the time proposed by Mr. Guthrie, he did not see him, but found the old ticket (of which the following is a correct copy) on his table, with the proposed alterations inserted :—

" ROYAL WESTMINSTER INFIRMARY,
FOR
DISEASES OF THE EYE,
No. 9, Warwick Street, Golden Square.

Treasurer,
S. Reed, Esq., 4, Berkeley Street.
Physician,
Dr. Forbes, 25, Argyll Street.
Surgeon,
G. J. Guthrie, Esq., 2, Berkeley Street.
Secretary,
J. Courtney, Regent Circus.
Cupper,
Mr. Leese, 18, Princes Street, Cavendish Sq.

Admit
of *Parish,*
Governor.
Dated

N. B. The Patients are desired to attend on Tuesdays, Thursdays, and Saturdays, at *Ten o'Clock in the Morning*. Each person to bring a small box and bottle for such medicines as may be ordered.

Poor persons afflicted with other diseases, can obtain gratuitous advice on the recommendation of a Governor of the Institution, by presenting this Ticket to Dr. Forbes, 25, Argyll Street, on Monday, Wednesday, and Saturday, at nine o'clock in the morning; or to Mr. Guthrie, 2, Berkeley Street, Berkeley Square, between the hours of two and four every day."

This is the letter of admission as it stood on the 26th of May, the date of the paragraph in The Lancet.

Dr. Forbes left a note upon the table, stating, that he thought the change of hour from ten to half-past eleven would be inconvenient to the patients, as it would interfere with their dinner time; and, also, that he could not pledge himself to be regular in his own attendance at the newly-proposed hours.

Without any further communication with Dr. Forbes, Mr. Guthrie had the new ticket printed. Thus the hour of visit on Saturday the 26th of May, the day on which the paragraph appeared in The Lancet, was ten o'clock; but Saturday, June the 2d, the day on which Mr. Guthrie's letter of reply was published, the hours had been *changed* to half past eleven for Dr. Forbes, and to half past twelve for Mr. Guthrie.

" ROYAL WESTMINSTER INFIRMARY,
FOR
DISEASES OF THE EYE,
No, 9, Warwick Street, Golden Square.

Treasurer,
S. Reed, Esq., 4, Berkeley Street.
Physician,
Dr. Forbes, 25, Argyll Street.
Surgeon,
G. J. Guthrie, Esq., F.R.S., (Surgeon to the Westminster Hospital) 2, Berkeley Street, Berkeley Square.
Secretary,
J. Courtney, Regent Circus.
Cupper,
Mr. Leese, 18, Princes Street, Cavendish Sq.

Admit
of *Parish*
Governor.
Dated

N. B. The patients are desired to attend on Tuesdays, Thursdays, and Saturdays; each person to bring a small box and bottle for such medicines as may be ordered.

Dr. Forbes attends on Saturdays at *Half-past Eleven.*

Mr. Guthrie on Tuesdays, at *Half-past Twelve*.

Dr. Forbes and Mr. Guthrie on Thursdays, from *Half-past Eleven till Half-past One*.

Poor persons afflicted with other diseases, can obtain gratuitous advice on the recommendation of a Governor of the Institution, by presenting this ticket to Dr. Forbes, 25, Argyll Street, on Monday, Wednesday, and Saturday, at nine o'clock in the morning.

Mr. Guthrie will give advice to poor persons afflicted with surgical diseases, on Tuesdays and Thursdays, at half-past one o'clock, after the business of the Infirmary is over; and, if their cases require an operation, he will take them under his own care, into the Westminster Hospital."

This is the letter of admission, as altered on the 27th of May, printed during the week, with the change of hours of attendance. Compare it with Mr. Guthrie's letter of the 26th of May.

ROYAL WESTMINSTER INFIRMARY.

To the Editor of The Lancet.

Sir,—So long as the observations you were pleased to make on me, in your Journal, were merely personal, or related to my office as one of the Council of the College of Surgeons, I refrained from noticing them; but now that you have thought proper to publish a statement regarding the Royal Westminster Infirmary for diseases of the eye, which, whilst it implicates my conduct in the performance of the duties of its Surgeon, also declares that the poor persons who are applying to the charity for advice and assistance are neglected, I feel it due to those noblemen and gentlemen, who, at my repeated solicitations, have given it their support, to declare, that the whole of the defamatory part of the following paragraph, copied from The Lancet of this day, Saturday, May 26, *is an infamous and malignant falsehood*:—

"The patients of the Westminster Infirmary, for diseases of the eye, are ordered to attend on Tuesdays, Thursdays, and Saturdays, and, though coming from Kilburn, Paddington, Chelsea, and other places in the environs of town, are frequently obliged to return without the sought advice. Dr. Forbes examines about a third of 150 of these poor creatures; the rest are to be seen by Mr. Guthrie, who does not arrive till half past 12 o'clock, and sometimes not at all; and there does not appear to be any efficient house surgeon to act in his absence. It is sad work."

The days of attendance are Tuesdays, Thursdays, and Saturdays, at 12 o'clock. The whole duty is done by Dr. Forbes on Saturdays, and on Tuesdays by me. It is performed conjointly on Thursdays, or by either, as the case may be, a message being sent by Dr. Forbes to me, or vice versa. The patients receive a numbered ticket on their arrival, and are called up for examination by tens. The students know that I leave home on foot as soon after 12 as possible, and neither patients nor students expect me to arrive until a quarter past 12. My carriage is never ordered to come for me until a quarter before two. During the ten years I have been surgeon to the Infirmary, I have not failed three times in my attendance on the Tuesday, or day when I was alone expected. I have not been absent twenty times on the Thursday during the same period; and although I am not expected on the Saturday, I have been generally present for a longer or shorter period of time. On the other four days in the week, I frequently call at the Infirmary to see particular cases, or every one of them; and when any of the out-patients are in danger of losing an eye, I direct them to come to my house, at ten in the morning, on the intervening days. Two men (one of them Thomas Moody, of 12, New-street, Broad-street) are now availing themselves of this privilege. The house-surgeon of the Infirmary, Mr. Tebbs, will have been two years in his office next September, and is better qualified to treat diseases of the eye than nine-tenths of the surgeons in London.*

I am aware that this statement may not be considered sufficient proof by all your readers, that the one you have published is the gross and infamous falsehood I deem it; and I have no doubt the person who furnished you with it, will readily supply another of the same description. In order, therefore, to put the matter out of doubt, I invite you to visit the Infirmary on Tuesday next, the 29th of May, at a quarter past twelve, when you shall have the opportunity of inquiring both of the students and patients, as to the correctness of the charges you have made; and as I am personally unacquainted with you, the production of this letter will ensure you a civil reception, and perfect freedom of inquiry.

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* This person, who was the *house-pupil* on the 26th of May, on the morning when the paragraph in The Lancet appeared, is, for the first time, denominated house-surgeon by Mr. Guthrie, in his letter of the same date. He had been *rejected once*, if not *twice*, at the College of Surgeons; and, according to Mr. Guthrie's *own confession*, made to Dr. Forbes on the 17th of December, the day previous to the intended trial, is *ignorant of anatomy*.—Note by Dr. F.

I am, Sir,
Your obedient servant,
G. J. Guthrie.

2, Berkeley Street,
May 26, 1827.

Lancet, June 2, 1827.

Dr. Forbes openly expressed his opinion and regret, that there was some ground for the animadversion in The Lancet, and should have repeated that opinion to Mr. Guthrie himself, had that gentleman ever consulted him on the subject. But it is remarkable that every step that Mr. Guthrie took with regard to The Lancet, from his letter of the 26th of May, containing an invitation to the editor to visit the Infirmary, to the commencement of his suit, was taken without the slightest communication being made to Dr. Forbes, who knew of his intentions only through the medium of public report; but whenever he did hear it, he always expressed himself sorry that Mr. Guthrie should have any intention of prosecuting The Lancet, since he thought that some part of the management of the Infirmary gave but too much room for animadversion. Had Mr. Guthrie communicated with Dr. Forbes previously to his letter to The Lancet, or previously to his prosecution of the editor, these opinions would have been candidly expressed to him; and it is scarcely possible, openly as they were expressed, that he could have been ignorant of them; but as Mr. Guthrie chose to take every step, even to that of inviting the editor of The Lancet to visit the Infirmary, without the slightest communication with his colleague, it was not certainly Dr. Forbes's place to intrude his opinion or advice upon Mr. Guthrie's notice.

It was not till the 11th of December that Mr. Guthrie afforded Dr. Forbes any opportunity of communicating his sentiments, an opportunity of which Dr. Forbes immediately availed himself, as will be seen in his letter of the 12th of December, (vide No. 1, in the accompanying correspondence,) delivered at the Eye Infirmary at three o'clock on that day. To this letter Mr. Guthrie made no reply, and Dr. Forbes only forebore pressing for one out of consideration for the additional occupation of his time, which the approaching trial must have created. On the 14th of December, Dr. Forbes received a subpœna from the Editor of The Lancet, when he immediately called upon several friends, stating his unwillingness to appear from the fear that questions might be asked, which would elicit answers that might be construed unfavourably to Mr. Guthrie, and finally resolved on that course of conduct which was considered by himself and his friends as the most likely to avoid this result. (Vide letter No. 4, from Mr. Samuel Beazley to Mr. Guthrie, Dec. 20, and a letter from Mr. John Hardwick, No. 17, to the same effect.) Dr. Forbes showed the subpœna to Mr. Guthrie the next day, stating, that he had sent the sovereign which accompanied it, to the Fund for the Relief of the Widows and Orphans of Medical Men, &c. This was certainly affording an opportunity for explanation and discussion; but the only observation made by Mr. Guthrie was, "Why did you not give the sovereign to the Building Fund of the Infirmary?" On Monday morning, December 17th, the day immediately previous to that fixed for the trial, Mr. Guthrie called upon Dr. Forbes while he was at breakfast, and stating, that as he had been subpœnaed by the opposite party, it would be a bad compliment if he did not receive one from him, gave Dr. Forbes a subpœna, and for the first time, communicated with him upon the subject, and, as far as Dr. Forbes's memory can furnish an account of a hurried and desultory conversation, this communication was to the following effect:—Mr. Guthrie—"I suppose we are agreed with regard to our practice at the Infirmary?" Dr. Forbes replied, "Oh yes, I believe so now," or words to that effect. Mr. Guthrie then said " that he should take credit to himself for the introduction of the use of strong stimulating applications to the eye in cases of chronic inflammation; that he would, however, pay Dr. Forbes a compliment in the course of the trial, and that Mr. Travers would appear in Court to give his opinion of the beneficial effects of stimulating applications in chronic diseases of the eye." Mr. Guthrie had scarcely left the house, when Dr. Forbes began to fear that, in partially agreeing with him in regard to their practice now, he might suppose that he had intended to admit more than he could have been warranted in doing, by the opinion which he had so often expressed, both to Mr. Guthrie and others, and which it was impossible Mr. Guthrie could have forgotten, when he put these questions to Dr. Forbes on the morning of the 17th. The moment, therefore, that Dr. Forbes thought he should find Mr. Guthrie at home, he called at his house, for the purpose of explaining to him more particularly some points of their conversation, lest he should have been misunderstood, and supposed to have admitted more than he intended, or that Mr. Guthrie, from his recollection, could have imagined that he intended. Mr. Guthrie not being at home, Dr. Forbes repeated his call between five and six o'clock, and Mr. Guthrie not being returned, desired the servant to say that he had called twice, and that he would call again at nine, as he had something very particular to say to him, and that if Mr. Guthrie should return in the meantime, Dr. Forbes begged that he would call upon him in Argyll Street, where he would be till half past eight. Dr. Forbes again called upon Mr. Guthrie at nine o'clock, and still not finding him at home, wrote the note No. 3 in the correspondence, as a more explicit confirmation of those opinions, of which Mr. Guthrie had long been well aware. This letter, which forms the basis of Mr. Guthrie's complaint, Dr. Forbes declares most solemnly, was written with the best intention, because it appeared to him that Mr. Guthrie calculated certainly upon his stating nothing but what was favourable to the suit. Dr. Forbes thought it right and fair to put him in possession in writing of his real sentiments, that he might not be taken by surprise in the course of Dr. Forbes's examination by the defendant, or be induced unguardedly to cross-examine him on points, where his opinion might be contrary to that which Mr. Guthrie had calculated upon. It is the lateness of this explanation which forms Mr. Guthrie's only ground of complaint, and yet it is remarkable that Dr. Forbes sought to give this explanation within three hours, and actually did give it within twelve hours of the *very first* communication which Mr. Guthrie thought proper to make to Dr. Forbes, on the subject of his prosecution of THE LANCET. Presuming, therefore, which cannot be the case, that Mr. Guthrie was ignorant of Dr. Forbes's sentiments, who was to blame for this ignorance, or who was answerable for this delay, and who, under such circumstances, can imagine that this note, or, indeed, that any mere difference of opinion could have been the ground of Mr. Guthrie's withdrawing the record? Dr. Forbes was as much surprised, as every body appeared to be, at this circumstance; and, on quitting the Court, asked Dr. James Johnson, if he knew the reason for such a result. Dr. James Johnson's reply was of such a nature, as induced Dr. Forbes the next morning, to send his friend, Mr. Samuel Beazley, to him, to desire an explanation, to contradict any statement that could possibly give rise to such an opinion as that expressed by Dr. James Johnson, and to declare that, after such contradiction, he should hold any body personally responsible for assertions, which he could not but consider as derogatory to his honour. Dr. James Johnson fairly and candidly gave the names of the gentlemen from whom he had derived the impression, including that of Mr. Guthrie.—Dr. Forbes, therefore, felt, that it was the principal, Mr. Guthrie, to whom he ought to apply for the necessary explanation, that it was a question entirely between Mr. Guthrie and himself, and that no one else ought to be involved either in their disputes or their consequences. Mr. Beazley then being well known to Mr. Guthrie, as well as to Dr. Forbes, at his own suggestion, wrote the letter No. 4, which was followed by the accompanying correspondence, which Dr. Forbes leaves without a comment. But it is particularly necessary to direct the reader's attention to Dr. Forbes's statement of the conduct evinced to him at the Eye Infirmary, on his first official visit after the day of the intended trial, and which it must be observed occurred during the progress of this correspondence.

Having by the letter, No. 11, obtained from Mr. Guthrie a distinct denial of having, in any degree, authorised this treatment, and having satisfied Dr. Forbes and his friends by his removal of Mr. Ward from the Infirmary, and having also obtained from him, in the same letter, a distinct acknowledgment, that he had no intention of imputing to Dr. Forbes any improper motive in the evidence which he might have been called on to give at the trial, it was imagined that this disagreeable affair had been brought to a favourable conclusion. But Dr. Forbes having thus waited till he settled with the principal, felt it incumbent upon him to call upon Mr. Thomson for an explanation of, or apology for, his conduct at the Infirmary, both on account of his own feelings, as well as from the circumstance of his being represented in Mr. Guthrie's note, (No. 7,) as being near thirty years of age, and answerable for his own conduct. After Mr. Guthrie's admission, Dr. Hume, supposing there could be little difficulty in prevailing on a person who had never received the slightest provocation from Dr. Forbes to retract the insulting words he had made use of, went to Mr. Thomson to explain to him what had taken place between Dr. Forbes and Mr. Guthrie, with the admissions made to Dr. Forbes by the latter. I state what passed in Dr. Hume's own words.

Mr. Thomson acknowledged, "that he did it with premeditation." Mr. Thomson referred him to his friend, to whom Dr. Hume, in the fullest and clearest manner, pointed out every thing that could remove any unfavourable impression which might have been made on the mind of Mr. Thomson, of Dr. Forbes's conduct. This, however, had no effect, and it was therefore necessary to call upon Mr. Thomson for immediate personal satisfaction, which that gentleman did not hesitate in granting. For the result of this meeting, the reader is referred to the statement of the seconds, printed at the end of the correspondence. The only observation on this circumstance, which the friends of Dr. Forbes think proper to make, is, that it may be considered rather surprising that Mr. Guthrie, being perfectly aware of what had taken place with Mr. Thomson, should suffer a whole week to elapse, without taking any step whatever to prevent that which he must have known would be the result; and thus have relieved Dr. Forbes from the painful necessity of meeting a gentleman as an enemy, with whom he could, and ought to have had, no cause of dispute.

After such a result as this with Mr. Thomson, Dr. Forbes and his friends, feeling that he might be liable to the same insult again from Gentlemen with whom he could have no cause of dispute, determined to address the letter No. 15, to Mr. Guthrie, holding him responsible for any insult to which Dr. Forbes might be subjected at the Infirmary.

From this statement of facts, it appears to Dr. Forbes, that any unbiassed person must be of opinion, that Mr. Guthrie must necessarily have been aware of Dr. Forbes's sentiments; 1st, from several previous conversations; 2dly, from his complaints of the method of managing the Institution; 3dly, from his representation to the Committee; and, finally, from his letter No. 2, of the 12th of December; and yet Mr. Guthrie's only complaint against Dr. Forbes, and the only ground that has been stated for his unwarrantable treatment at the Infirmary is, that Dr. Forbes kept Mr. Guthrie in ignorance of these sentiments until the night of the 17th December. That this was not the case, Dr. Forbes thinks is most fully proved in the foregoing statement; but presuming that it had been so, what right had Dr. Forbes to force his opinions upon a gentleman who, at such a period, exhibited in his conduct such a total want of confidence as to suffer him to learn every step that was taken in the affair, either from public rumour or from THE LANCET itself; for Dr. Forbes was not aware of Mr. Guthrie's reply to the paragraph of the 26th May until he saw the letter in THE LANCET of the 2d of June, and how could Dr. Forbes, with any respect to his own character, open a communication on a subject in which Mr. Guthrie had thought proper to take steps of such vital importance to the Institution, and tending to a public exposure of its management and practice, without once consulting his colleague. Were any additional proofs wanting of Mr. Guthrie's knowledge of Dr. Forbes's sentiments, it would be found in his own conduct from the period of his commencing his process against THE LANCET; for what could have prevented his communicating and consulting with Dr. Forbes, and what could have prevented his subpœnaing so natural an ally and witness upon such an occasion, as his own colleague, but the certainty he must have possessed of the difference of opinion which must have existed between them. It is true that Mr. Guthrie did, at last, on the 17th of December, four days after the subpœna had been received from THE LANCET, and only one day preceding the intended trial, give Dr. Forbes a subpœna; but this was accompanied by an observation from Mr. Guthrie, that it was done as a mere matter of form, and because it would look invidious not to serve him with a subpœna, since he had received one from the opposite party.

(Signed) CHAS. F. FORBES.

" CORRESPONDENCE.

" PREFATORY STATEMENT.

To prevent the possibility of misrepresentation, my friends have urged me to print the whole of the correspondence arising out of the misunderstanding between myself and Mr. Guthrie respecting the Royal Westminster Infirmary for diseases of the eye.

It is unnecessary for me to make any observations on the facts which these letters contain, as they will, I hope, be found to prove that the line of conduct which I have pursued has been one of candour towards Mr. Guthrie; that the differences in our opinions, both as respecting the general management of the Eye Infirmary, as well as of the medical treatment of the patients, had never been concealed by me; and that these differences had been well known to Mr. Guthrie. Mr. Guthrie's letter (No. 8.) is so satisfactory on these points, that it seemed impossible the matter should have gone any further.

The line taken by Mr. Thomson disappointed this expectation, and gave occasion to the meeting of which an account is given in No. 18.

C. F. FORBES."

Argyll Street, Jan. 1828.

" No. I.

MR. GUTHRIE TO DR. FORBES.

Tuesday, Dec. 11, 1827.

My dear Forbes,—I send you a statement of the numbers admitted at the Infirmary for the last five months of the years 1826 and 1827, by which you will perceive one hundred and seventy-six increase. As the committee meets to-morrow at three, I think it better the statement should be made by you, than that it should come in any other way before it; and I shall therefore leave it to you, provided you are of that opinion. In all other matters we are of the same thinking; and if the committee determine on any thing in regard to Davis, I have no sort of objection to whatever it may be, provided we get another before he is dismissed. I am in hopes, however, to learn something in a day or two about our building, and then there can be no difficulty.

Ever yours,
(Signed) G. J. Guthrie.

Admitted....	1826.	1827.	Increase.
July........	121	151	30
August......	85	128	43
September ..	103	138	35
October.....	100	141	41
November ...	77	104	27

(Initialled) G. J. G."

" No. II.

DR. FORBES TO MR. GUTHRIE.

Argyll Street, Dec. 12, 1827.

My dear Guthrie,—I have received no summons to attend the Committee of the Eye Infirmary to-day, nor will it be in my power to do so, should any meeting take place, as I am obliged to be at Lambeth at 3 o'clock. I entertain the same opinion as formerly, that the present hours of attendance at the Eye Infirmary are extremely inconvenient to the poor, by infringing upon that time which is required for preparing and partaking of their family meal.

I am sure, had the former hour of attendance, (ten o'clock,) been continued, that the number of patients would not have diminished as they did after the change was made; but that the numbers would have stood much higher now than they do.

With regard to Davis, I consider that I have done my duty in bringing his conduct before the Committee with a view to his removal; and his still continuing is contrary to my opinion and wishes. He is a person in every respect improper to fill the situation he does. He is neither honest nor sober; he is negligent in the discharge of his duties; rude and impertinent to his superiors, and brutal in his conduct to the patients.

With respect to myself, I am very far from being satisfied with my position at the Infirmary; nor, indeed, can I continue, consistently with what is due to my own character, to remain in it, unless it be very materially changed. It is only a few days ago that, having left the Infirmary, after prescribing for the patients, you arrived, and very unceremoniously changed the treatment I had previously prescribed for two patients: the one, a woman, was ordered by you to apply leeches where I had not considered them necessary; the other, a man, in whom you counter-ordered cupping, where I had considered it necessary to prescribe it, in order to relieve the patient from pain and inflammation following the application of the strong ointment of the nitrate of silver by you a day or two before. I consider that I have occasion to complain of your having made Mr. Ward (whom Davis, the surgery-man, has informed me is the house-pupil at the Infirmary) a medium of communication with me upon a subject, which, indeed, as on all subjects connected with the Institution, should be made by you and me to each other, either verbally or by note, and not delegated to a third person, particularly to a pupil, who addressed me in a style bordering upon petulance, and to which I cannot permit myself to be again exposed.

Ever yours,
(Signed) Chas. F. Forbes.

G. J. Guthrie, Esq. &c."

" *Extract from the Minute Book of the Infirmary.*

Royal Westminster Infirmary for curing diseases of the Eye, 9, Warwick Street, Golden Square, Monday, 5th March, 1827.

At a meeting of the Committee held this day, Dr. Forbes stated, That the attendant Davis is extremely negligent in the execution of the duties of his situation, and extravagant in the expenditure of the articles committed to his charge; also that his rude and boisterous conduct to every one, but particularly to the patients, is highly offensive; that his conduct generally is calculated to bring the Infirmary into disrepute. It has come to Dr. Forbes's ears, that some patients have complained out of doors of being treated harshly at the Infirmary. The number of patients attending there has considerably diminished.

I certify the above to be a true extract from the minute-book.

J. Courtney, Sec."

" No. III.

DR. FORBES TO MR. GUTHRIE.

Dear Guthrie,—This is the third time of my calling to-day without finding you at home, to say, that with reference to your question put to me this morning, whether we were agreed in our practice at the Eye Infirmary, you must be aware that it is many months since I told you it was my opinion that stimulating applications to the eyes of the patients, were too indiscriminately used, and that constitutional treatment was, in many cases, not sufficiently attended to. I merely mention this, because it is possible, though not probable, that questions might be put to me concerning the practice, in which event I should feel myself compelled to state as above.

Yours ever,
Chas. F. Forbes.
Monday evening, half past 9,
Dec. 17th, 1827."

"No. IV.

MR. S. BEAZLEY TO MR. GUTHRIE.

29, Soho Square, Dec. 20, 1827.

My dear Sir,—In consequence of Dr. James Johnson's having said to Dr. Forbes, that 'the impression was that he would give evidence unfavourable to your practice in the late cause between yourself and The Lancet,' I yesterday called upon that gentleman on the part of Dr. Forbes for an explanation; when, in addition to the general rumour which had induced him to express such an opinion, Dr. Johnson stated that the same impression had been made upon your mind, and that on leaving the Court you had said so to him.

Under these circumstances, my dear Sir, I feel it a duty both to yourself and Dr. Forbes to state, that, on receiving the subpœna,* Dr. Forbes immediately called upon me, and fearing that the intention might be to put questions with the view to inculpate you, it was agreed between us, most cheerfully on the part of Dr. Forbes, that he should answer no questions that had any such tendency, without first appealing to the opinion of the judge as to the necessity of his doing so. He also expressed himself most unwilling to go into the Court as a witness.

With respect to the letter from which this unfounded surmise has arisen, I am of course no judge of the subject; but cannot look upon it in any other light than as a difference of opinion with regard to practice, which must occasionally exist among gentlemen of all professions, and the expression of which being a mere matter of opinion, could have had no influence on the present occasion.

I trust that the motive which has dictated this letter, will be a sufficient apology for my addressing you on the subject,

And remain, my dear Sir,
Yours very truly,
Samuel Beazley.
G. J. Guthrie, Esq."

"No. V.

MR. GUTHRIE TO MR. BEAZLEY.

2, Berkeley Street, Dec. 21, Friday.

My dear Sir,—I beg to acknowledge your note, received late last evening. I am so hurried by various professional engagements, (being in the act of going to Limehouse,) that I trust you will excuse me if I do not reply until to-morrow.

Very truly yours,
G. J. Guthrie.
S. Beazley, Esq.

During the interval between Mr. Beazley's letter and Mr. Guthrie's reply, Dr. Forbes experienced that unwarrantable and unprovoked treatment at the Infirmary, which produced the following statement and correspondence between Dr. Forbes and Mr. Guthrie."

"No. VI.

DR. FORBES TO MR. GUTHRIE.

Dear Guthrie,—As I have through the whole of our differences endeavoured to be perfectly open, I inclose you a statement which I have now drawn up of the treatment to which I was most unwarrantably exposed on my last visit to the Infirmary, and which I have already submitted to Sir James M'Gregor; and although I am unwilling to suppose that such conduct could, in the remotest degree, be authorised by you; yet, from all the recent circumstances, and from the false reports which are of course repeated to me, with regard to my conduct in your trial with The Lancet, I feel it a duty to request to know distinctly from yourself, that such has not been the case; and if it has not, I feel assured that you, as my colleague, for your own sake as well as mine, will feel the absolute necessity, that some public mark of reprobation, from the principals of the Institution, should be attached to such conduct.

Expecting to hear from you immediately upon this subject,

I am, ever yours,
C. F. Forbes."
Saturday Night, 10 o'Clock,
Dec. 22, 1827.

"*Dr. Forbes's Statement of the circumstances which occurred at the Westminster Eye Infirmary, on his visit this morning, December 20th.*

On entering the Infirmary, I was accosted by Mr. Ward and Dr. Auchinlech, who, in a very rude and insolent tone, called me, while I was prescribing for the patients, into Mr. Ward's room, and told me I had been guilty of an untrue statement, in denying the correctness of the book of entry of the patients, in which they felt their characters were implicated. Notwithstanding the insulting manner in which this attack (for I call it nothing else) was made upon me, I assured them, upon my honour, that I had not the slightest intention of casting any imputation upon them; that they had been at the Infirmary but a short time, whilst the book in question had been used for years; and that it had been kept exposed in an open drawer; and that the entries had been made by any body who happened to be at hand, but by no one in particular; that this being the case, I was surprised to find that they should conceive, that I could have meant to attach any blame to either of them; but that, as it appeared to be so, I was ready to declare, either publicly or privately, by writing or by printing, that I had no intention of casting reflections upon any individual; but that I could not acknowledge the book to be a document to be depended upon; because, according to my own observations, the patients were less numerous than they had been before the hours were changed.

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* From the Editor of The Lancet.

Without paying attention to this explanation, Mr. Ward, in the same insulting tone and manner, said, "Sir, had you stated this upon oath before a court of justice, you would have perjured yourself. I am your equal in every respect." I replied: "Recollect, Sir, that you are a pupil, and that I am a physician to this Institution." On which Mr. Ward said, "I am house-surgeon, Sir." To which I answered, "There is no house-surgeon to this Institution that I know of—you are the house-pupil." To this Mr. Ward added, in the same insulting manner, "Then, Sir, you should have stated this before the Committee when I signed the return."

I thought it derogatory to my situation, to continue this discussion with pupils who are supposed to be learning their profession at an Institution to which I am physician, and therefore was about to retire, but Mr. Ward continued his insulting language; and, amongst other things, said, that the reason that the patients did not appear to be so numerous was, because they would not see me; and that, as a proof of that, he had put aside Mr. Guthrie's numerical tickets, which would show the truth of what he had asserted. I asked Mr. Ward, if he was not aware, that I always gave such patients, as desired to see Mr. Guthrie, an opportunity of doing so, and that I always encouraged this desire whenever it was expressed. I also reminded Mr. Ward, that the patients whose cases were strictly surgical I never interfered with, but was in the habit of referring them to Mr. Guthrie. Having seen all the patients who presented themselves, nineteen in continuous numbers, at half past twelve o'clock, as I was quitting the Infirmary, Mr. Ward again addressed me in the same rude manner, desiring to know whether I wished to see Mr. Guthrie's tickets as compared to my own; to which I made no other reply, than that I had nothing to do with Mr. Ward, or any pupil who presumed to address me in the manner he did, or words to that effect. In addition to this, I have to state that, on entering the room in which I was prescribing for the patients, Mr. Thomson, upon my bowing to him, said, "Dr. Forbes, I request you will never speak to me again: you have betrayed your friend Mr. Guthrie, by writing that letter to him of Monday night (Dec. 17)."

"No. VII.

MR. GUTHRIE TO DR. FORBES.

2, Berkeley Street, Dec. 23, 1827.

Mr. Guthrie, in reply to Dr. Forbes' note, received at eleven last night, and statement of the insults offered to him by Dr. Auchinlech, Mr. Thomson, and Mr. Ward, at the Infirmary on Thursday, distinctly disavows any knowledge of, or participation in, the transaction. He regrets Mr. Ward should have conducted himself improperly to Dr. Forbes, as he gave him strict directions on Wednesday evening to observe that respectful demeanor towards him which is due to the physician of the Infirmary. He repeated these directions in writing on Saturday (yesterday) morning, and he has this day desired Mr. Ward, being his articled student, to remove from the Infirmary. Dr. Auchinlech being a graduate in medicine, and Mr. Thomson a surgeon resident in London, neither of them being students, nor under Mr. Guthrie's control, and both being near thirty years of age, must be answerable for their own conduct. Mr. Guthrie considers that Dr. Forbes' note to him of last Monday evening puts an end to all communications between them."

"No. VIII.

MR. GUTHRIE TO MR. SAMUEL BEAZLEY.

2, Berkeley Street, Dec. 22, 1827.

My dear Sir,—I beg to acknowledge your letter of the 20th, received late the same evening; and in reply to your question have no hesitation in stating, that the note Dr. Forbes wrote in my room, and left at my house at half past nine o'clock on Monday evening, but which I did not receive until my return home at eleven, caused me to adopt the line of conduct I pursued next morning, in withdrawing the record in my trial against Mr. Wakley. When I brought an action against the Editor of THE LANCET for a libel, it was not to recover damages on account of the matter being libellous, (although true) but to prove that every statement in it was false, and on that ground to obtain a verdict. As a public man, I consider all my public acts open to investigation and animadversion. I only require that the statements on which the animadversions are made shall be true. Every one of those which I impugned in The Lancet, I declared to be false; and the insinuations resulting from them to be equally without foundation. Points on which I believed myself to be prepared with evidence, nothing could deprecate or overturn.

That Dr. Forbes, from certain trifling differences, which had existed for the last year and a half (but which had no reference to the practice of the patients), might not prove a friendly witness, I was assured; but to all the observations made to me, that he would turn out decidedly hostile, I always, (although perhaps very unadvisedly) denied its possibility, declaring that he neither could nor would say any thing against me, in the event of his being called on the trial.

Dr. Forbes informed me the beginning of last week that his friend Mr. Wardrop had written him a note, saying the Editor of The Lancet intended to subpœna him, Dr. Forbes, and Sir James M'Gregor, but that it was only on some question relative to Mr. Alexander, which I told him was absurd, and merely to conceal the real object. On Thursday last, the 13th, in consequence of a letter I had received from Dr. Forbes the evening before, in answer to one of mine, but which does not advert to this subject, I requested him to accompany me into the house-surgeon's room at the Infirmary, and, in a conversation of nearly half an hour's duration, went over several points connected with the establishment, which he had noticed in that letter, as well as with relation to its future prospects, and our own proceedings, and drew his attention to the great success which had attended the threefold increase I had latterly made to the stimulatory plan of treatment; a success which almost appeared magical, and which would, I thought, be decisive as to the mode of practice to be adopted hereafter in all chronic cases. I ventured to suggest, that as he had, on the subjects in question, fallen into a misconception, he should for the future be certain offence was intended before he believed it; and I explained that in no instance in which he had supposed it to be offered, had it been intended. I conceived he was perfectly satisfied with the explanation. Some friends of mine still persisting that Dr. Forbes would give evidence as a witness injurious to me, and such as I did not expect, I determined on coming to what I thought would be a distinct understanding; and I accordingly waited on Dr. Forbes on Monday morning last at ten o'clock. After a few minutes' conversation direct to the purpose, I left him with the conviction, that whatever questions might be put to him, he would say nothing detrimental to me—favourable I did not expect. At an adjourned meeting of the Committee of the Infirmary, held at half past three o'clock, the same day, (at which I was not present, being engaged at the College of Surgeons), it was proved, that between the months of March and November, both inclusive, the number of patients admitted on the books had increased by upwards of 170 above the number of the corresponding months of the years 1825 and 1826, demonstrating to the satisfaction of every member of the Committee that Dr. Forbes' statement, made in March last, that the number of patients had diminished on account of the change of the hour of attendance, was an error, the increase of that month of March alone being eighteen. This statement, in which my name was not mentioned, although the change in the hours of attendance was made at my request, was what the Editor of The Lancet, in his correspondence, was pleased to call a protest. Dr. Forbes did not deny that the books proved the fact of an increase; but he declared the impression still existed in his mind that the numbers had diminished; and, if called upon in Court, the next day, he should give evidence to that effect, although the Committee should pass a vote of thanks for the attention which led to such increase. This was communicated to me at the same time as I received Dr. Forbes' note, viz. on Monday evening, at eleven o'clock, on my return from a consultation with my counsel. I was then also informed that Dr. Forbes had called on me at five o'clock, and again at seven, previously to writing the note in my room at half past nine. If Dr. Forbes had been satisfied in his own mind that he had made me fully aware of his intentions, in either of our conversations of the preceding Thursday, or of that morning, he would not have called on me three times in one evening to explain, or have thought it necessary to leave me a note expressive of his determination on the subject; viz. to give that which I take to be the strongest possible evidence against me, or the only point of any importance in the libel with which he was in any way acquainted.

To have gone into Court to have myself abused, I should not have minded, provided a complete and triumphant proof of the falsehoods and insinuations stated had followed, certified by a verdict giving heavy damages; but to subject myself to that abuse, and then to have my colleague called as a witness, and to have him give evidence in unequivocal support of the matter of the libel, could only have obtained for me the appellation of a blockhead: I had more sense than to do it.

I admit that Dr. Forbes is fully entitled to entertain his own opinion of me, and of my practice, and to have given it on this very trial, if he pleased. I do not complain of this; but I confess I was hurt to find he had allowed me either to misunderstand him, or to remain unacquainted with his intention to act decidedly against me, until it was too late to take any other course than that which I was obliged to adopt, and the reason for which I was obliged to give, namely, that I found my colleague had determined to give evidence directly against me. It is necessary also to inform you, that on going into Court, I met and asked Dr. Forbes if he was determined to abide by his letter to me of the preceding evening. He replied he was; to which I said, it would put an end to the proceedings, and left him.

If Dr. Forbes had written to me the same letter on the day he was subpœna'd, or received the intimation from Mr. Wardrop of the intention of the Editor of The Lancet to do it, I should have been prepared; and, however I might have been annoyed, I should have been obliged by his timely information, and for which (although late) I do still feel obliged, when compared with that course you say, in your note, he had intended to pursue, and which would have proved more injurious than any open declaration against me.

That Dr. Forbes' conclusions relative to my practice are erroneous, I am ready to prove. The practitioners and students attending the practice of the Infirmary will, I am confident, support that proof to a man: an examination of the patients now attending will establish it on every point; and for that proof and that examination I have applied, requesting the treasurer to take such measures with the Committee as will enable the governors of the charity, who are professional men, to make the necessary inquiry.

I am, my dear Sir, very truly yours,
(Signed) G. J. Guthrie.

I have annexed a copy of Dr. Forbes' letter;* and it is necessary I should add, that Dr. Forbes did say to me, some months ago, and previously to the appearance of the libel in The Lancet, he had heard it said, out of doors, that we used stimulants more than other people, and less of general treatment, and that we should certainly be attacked in The Lancet. To which I replied, that if The Lancet proved we were wrong we would amend; if what was said was false, we would resist it; that I knew it arose altogether from envy at the popularity and reputation the Infirmary had acquired; that I was always changing my remedies and plans as long as the effect did not correspond with my expectations; and that I wished he would do the same, when he would soon be convinced by the result. The word "indiscriminately" was never used, to my recollection: and if Dr. Forbes had made use of such an offensive expression to me from himself, I should have immediately separated my patients from his, and all communication would have ceased between us.

(Signed) G. J. Guthrie.

"No. IX.

MR. BEAZLEY TO MR. GUTHRIE.

Soho Square, Dec. 24th.

My dear Sir,—In acknowledging the receipt of your reply to my letter, which came yesterday, and which I have of course forwarded to Dr. Forbes, I have to thank you for your attention to my communication.

Believe me, yours truly,
S. Beazley."

"No. X.

MR. BEAZLEY TO MR. GUTHRIE.

29, Soho Square, Dec. 24, 1827,
11 o'Clock, night.

My dear Sir,—You are aware from my note that I immediately forwarded your communication to Dr. Forbes, who, I am sorry to say, does not admit your answer to be a correct statement of the circumstances between you; but, independent of this, as it by no means contains a distinct denial of your having stated that he intended to give his evidence against you, you make it compulsory on him to say, that as he never could have an idea of either friendly or hostile evidence, (using your own expressions), he must require a distinct denial of any imputation on your part implying, either directly or indirectly, that he could have been influenced by any thing else than his own conviction of the truth; and at the same time, certain parts of your communication require a distinct acknowledgment from you whether the substance of his letter of the 12th instant, and from many previous conversations, you were not in possession of his sentiments with regard to the points upon which you imagined he could be examined. Allow me from myself to say, that, having read Dr. Forbes' note of Monday evening the 17th, on which you lay so much stress, it seems to me that it can be considered only as a more complete explanation of a paragraph of his letter of the 12th December, and by no means a new point of difference in opinion, of which you had been unaware until the receipt of that letter.

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* Letter No. 3.

Regretting, my dear sir, that I am the medium of such a communication,

Believe me, &c. &c.
SAM. BEAZLEY.

G. J. Guthrie, Esq."

" No. XI.

MR. GUTHRIE TO MR. S. BEAZLEY.

2, Berkeley Street, Dec. 25, 1827.

My dear Sir,—I am most ready to make any admission which may be satisfactory to Dr. Forbes, and at the same time consistent with my own honor.

I believe, in any thing Dr. Forbes might have said of me as an evidence, he would have spoken from a conviction of its truth, although I am equally satisfied that if he had made use of the expressions contained in his letter to me of the 17th instant, that conviction, however honest, would have been founded in error. In regard to the nature of the evidence which Dr. Forbes gave me to understand I might expect—it was this: That although little differences of opinion had existed between us, and did still exist, they were not of a nature to induce him to say any thing detrimental to my professional reputation. I was perfectly aware, that if pressed, Dr. Forbes would have said that I used stimulants more than he did, which would have been a mere difference of opinion of no consequence; but to say '*they were too indiscriminately used, and that constitutional treatment was, in many cases, not sufficiently attended to*,' was also expressing an opinion as to my want of judgment, which could not have failed to make a strong impression in every quarter, and which appeared likely to be highly detrimental to me, as coming from my colleague, the physician to the Infirmary, and being in fact in direct support of the matter of the libel. It is the opinion of all my friends at this moment, and of my solicitor, that it was not, nor is, my interest to go into Court with such evidence against me, although I should even obtain a verdict. Dr. Forbes says, he neither intended his evidence should be friendly or hostile to me. This was precisely what I expected—what I was prepared for previously to the receipt of his letter of the 17th. But with my view of that letter I could not hesitate. No one will deny the right of judging for myself, and if I conceived the evidence which Dr. Forbes states in that letter he should be compelled to give, if examined on those points, would be highly detrimental to me, I am at loss to understand why I should be called upon to declare my opinion to be the reverse. If any charge is made against Dr. Forbes by the profession, in consequence of my having said to Dr. Johnson, that I understood from Dr. Forbes's letter that his evidence would be against me, and that I therefore did not think fit to go to trial, (which I certainly did say,) he has only to publish that letter (if he thinks it necessary) in the journals, and the profession will then judge whether his view or mine of the matter be correct; and to the judgment of that profession I am willing to submit. Dr. Forbes' letter of the 12th does not advert to any opinion he was to give in evidence. The only passage which can be construed to relate to it is, that concerning a man in whom cupping was delayed, and to a woman for whom leeches were ordered by me. I explained the next day to Dr. Forbes, that of the woman I actually knew nothing. I did not recollect having seen such a person; and that if she had asked me to allow her to apply leeches, I had given my consent without knowing she had seen Dr. Forbes. With respect to the man, I told Dr. Forbes it was I had the right to complain, inasmuch as the man was under my care for a particular treatment, viz. the strong *argentum nitratum* ointment; the effect of which I had publicly explained to the students before him, stating that the inflammation was always increased for three or four days, when it declined, leaving a great improvement in the state of the patient. This man, who had been desired to remain below always for me, presented himself by mistake to Dr. Forbes on the 2d day after the application had been made, which was marked on his letter. Dr. Forbes immediately ordered him to be cupped. When I arrived, I expressed my regret Dr. Forbes should have seen him, and desired the house-surgeon to suspend the cupping for two days, as it would interfere with the progress of the case, and obscure the effect of the remedy.

Having thus given you every explanation in my power, I do not think a prolongation of this correspondence can lead to any further beneficial result, and will therefore beg of you to believe me, with great regret for the trouble I have given,

Very truly, your obliged servant,
G. J. GUTHRIE.

S. Beazley, Esq.

If there should be occasion to write to me, pray do me the favour to let your letter reach me between ten and twelve of the forenoon."

" No. XII.

MR. S. BEAZLEY TO MR. GUTHRIE.

29, Soho Square,
Wednesday, Dec. 26, 1827.

My dear Sir,—I am happy that your letter of yesterday enables me to say that I cannot but consider your distinct acknowledgment that Dr. Forbes could not have been influenced, had he been called on to give evidence of any thing else than his conviction of the truth, as perfectly satisfactory, and that your denial of having intended to cast any imputation on him that could imply any thing more than a mere difference of professional opinion, which you must allow any man has a right to express, removes the necessity of any further explanation.

I conclude of course that you can have no objection to Dr. Forbes or his friends making use of your letter to remove any contrary impression that may have been received on the subject.

I beg leave to express my pleasure at such a satisfactory conclusion having been put to so painful a correspondence by the frankness and candour with which you have met the question,

And believe me, my dear Sir,
Very truly yours,
S. Beazley.

G. J. Guthrie, Esq."

"No. XIII.

2, Berkeley Street, Dec. 27, 1827.

My dear Sir,—In reply to your letter of the 26th inst., I beg to say, I can have no objection to Dr. Forbes or his friends making any use they please of my letters; but I trust it is distinctly understood, that if this implies publication, the whole correspondence must be published, and not a part.

I am, my dear Sir,
Very truly yours,
G. J. Guthrie.

S. Beazley, Esq."

"No. XIV.

29, Soho Square, Dec. 27, 1827.

My dear Sir,—I had no allusion to publication in my letter of yesterday. I am no advocate for it in the case of private individuals, unless there is any absolute necessity, which I do not at present see in this affair; but if any should arise, of course it must be of the whole, and not any particular part of the correspondence.

Believe me, very truly yours,
S. Beazley.

G. J. Guthrie, Esq."

"No. XV.

MR. BEAZLEY TO MR. GUTHRIE.

29, Soho Square,
Dec. 31, Monday evening.

My dear Sir,—Notwithstanding your admission of the 25th inst., which I was happy in considering as a complete denial on your part of any imputation on Dr. Forbes' motives in his conduct towards you in the late transactions connected with your prosecution of the Editor of The Lancet,—Dr. Forbes cannot help feeling more than astonished at his being after all under the painful necessity of calling Mr. Thomson (with whom he never had the slightest difference) to account for expressions used towards him, and which could only have been in consequence of impressions which he had hoped would have been done away with by you, as much for your own sake as for that of Mr. Thomson. As, however, it does not appear that any step was taken by you either to prevent that unfortunate circumstance, or to hinder a repetition of similar occurrences, Dr. Forbes feels himself compelled, from a proper sense of what is due to himself, to inform you, that as he cannot again condescend to put himself on a footing with any of those gentlemen who, either as students or visitors, may be in attendance at the Eye Infirmary, and with whom he can have no cause of personal dispute, he must hold you responsible for any incivility or insult which he may in future receive whilst in the performance of his duty at that Institution, from any one connected with it.

This declaration would have been forwarded to you yesterday evening, but that I had understood from Dr. Hume that it was likely I might receive a communication from you in the course of this day, which probably might have prevented the necessity for it altogether.

Believe me, my dear Sir,
Yours faithfully,
S. Beazley.

G. J. Guthrie, Esq."

"No. XVI.

2, Berkeley Street, 2d Jan. 1828.

My dear Sir,—In reply to your letter of the 31st ult., delivered at eleven at night, I beg to refer you to mine to Dr. Forbes of the 23d ult., in answer to his letter and statement of the 22d, in which my feelings and sentiments are expressed in a manner which cannot, I believe, be misunderstood, and from which I will not deviate: nevertheless, whenever Dr. Forbes shall think fit to call upon me in the manner to which I presume you allude for any occurrences which may take place at the Infirmary, I shall be ready to answer him. I am sorry you should not have judged it expedient to attend to the wish expressed in my last letter of sending yours to me between the hours of ten and twelve in the morning, and I must therefore request, that if any further communication be necessary after this very long correspondence, it may be made to my friend Dr. Gordon, at his office, No. 5, Berkeley Street, under whose advice I have acted, and in whose hands the letters which have passed between us are placed.

I am, my dear Sir, very truly,
your obedient servant,
G. J. GUTHRIE.
S. Beazley, Esq."

" No. XVII.

MR. JOHN HARDWICK TO DR. FORBES.

Albany, K., 5, Monday, Dec. 24.

I am exceedingly vexed, my dear Doctor, to hear that within the last few days you have been so much annoyed by a report, that it was in consequence of your *intention* to give evidence against Mr. Guthrie, in his action against THE LANCET, the cause was ultimately withdrawn. That such was not your intention I am perfectly convinced, from the conversation I had with you almost immediately upon the receipt of the subpœna, in the course of which you more than once unequivocally expressed your concern at being called as a witness by the adverse party, lest from a difference of opinion that had long subsisted between yourself and Mr. Guthrie, and which that gentleman well knew, with respect to some points of practice, and the general administration of the affairs of the Eye Infirmary, any thing should be elicited from you, in the course of the inquiry, that might be considered as prejudicial to Mr. Guthrie's cause. But, situated as you were, it was your determination not to utter one syllable more than was necessary to answer the questions put to you by counsel. Thus much truly and straight-forwardly you, as a man of honour, felt yourself bound to do without reference to consequences. That if it should have the effect of weakening Mr. Guthrie's appeal to a jury, howmuchsoever it might be a subject of regret, you never would descend for him, or any man living, to what might seem to approach to evasive or equivocal testimony. This I well recollect was the substance of your observations on the subject of the subpœna, that so far from willingly stepping forward to give evidence that might in any way tend to prejudice Mr. Guthrie, you lamented to me the painful position in which you found yourself so unexpectedly placed.

Yours ever,
J. HARDWICK.
Dr. Forbes."

No. XVIII.

Certified Account of the Meeting between Dr. Forbes and Mr. Thomson.

London, 29th Dec. 1827.

Mr. Thomson having publicly made use of an expression to Dr. Forbes, which made it incumbent upon him to call on Mr. Thomson for satisfaction, the parties met at half-past three o'clock this day, on Clapham Common, (Dr. Forbes accompanied by his friend Dr. Hume, and Mr. Thomson by Mr. Burn of the 53d Regiment,) when, having exchanged two shots, an attempt was made on the part of the seconds to bring about an accommodation, which, however, proved unsuccessful. A third brace of pistols were then discharged, when Mr. Burn asked Dr. Hume whether he did not think the business had been carried sufficiently far for the honour of both parties? Dr. Hume and Mr. Burn then conferred together, and agreed that they could not, consistently with their own characters, permit the affair to proceed any further, however much they might regret that a reconciliation had not been effected. The parties then left the field.

(Signed) J. R. HUME, M. D.,
Inspector of Hospitals.
J. O. W. BURN,
Lieut. 53d Regiment.

(Copy.)

" 2, Berkeley Street, Jan. 11, 1828.

Mr. Guthrie cannot prevent the correspondence being printed or published, which has taken place on the occasion of the misunderstanding between Dr. Forbes and himself, if Dr. Forbes, or his friends, think fit to do it. He feels, however, the great impolicy of bringing their private differences before the public, more especially with the comments of one of the interested parties, and holds himself absolved from any participation in it.

Mr. Guthrie abandoned his trial with the editor of THE LANCET, to avoid the public discussion of all differences between them. He admitted, in their subsequent correspondence, all that he could consistent with honour and truth for the same purpose, and which correspondence he does not wish to renew. He regrets he has not succeeded, but feels satisfied his character is above all injury.

Mr. Guthrie now thinks, that if the dissemination of Dr. Forbes's unfavourable opinions, (as expressed in his letter of the 17th of December,) of so small a portion of his practice as is derived from the treatment of diseases of the eye, must take place through the medium of the press, it will be sufficiently counteracted by a knowledge of the following fact, which all persons may verify on visiting the Infirmary. " That Mr. Guthrie is held in such high estimation by the poor who fill the waiting-rooms, and sometimes the passages, to the number of 140; that they will cheerfully wait, if necessary, his arrival for an hour, in order to obtain his advice, from which it will be readily inferred, they derive the advantages they expect. The students and officers of the public service acknowledge, with equal gratitude, the instruction they receive from his opinions, and the observation of his practice."

Mr. Guthrie renews his distinct understanding, that if the correspondence is to be printed, it be the whole and not a part. He considers this to be his observations on Dr. Forbes's last memorandum."

[The end of correspondence between Dr. Forbes and Mr. Guthrie.]

GUTHRIE *v.* WAKLEY.

The following letter will put our readers in possession of the particulars relative to Mr. Guthrie's final retreat from the *Court of Common Pleas.*

MESSRS. FAIRTHORNE AND LOFTY TO MR. WAKLEY.

"35, King Street, City, March 3, 1828.

Yourself—ats—Guthrie.

Dear Sir,—In answer to your application, made for the purpose of learning the final disposition of this cause, we beg to apprise you, that on the 18th of December, the cause was regularly called on for trial, and the record withdrawn by the plaintiff's attorney. From thence, until the following term, no step was, or could be, taken; but, on the 23d of Jan. last, (the first day of Hilary Term,) a clerk of the attorney for the plaintiff called at our office, and stated, that he had applied at one of the judge's chambers to take out a summons for leave to discontinue the action on payment of costs, and had learned from the judge's clerk, that a summons of this description could not be had, unless with the consent of the defendant's attorneys, and the object of his visit to us was, to obtain such consent. Now we might have withheld it, and have adopted the usual course of moving for judgment, as in case of a nonsuit, for not proceeding to trial, but this we declined to do, and, by immediately giving the required consent, saved the plaintiff further costs. The consent given, the plaintiff on the same day obtained a rule, of which the following is a copy:—

'GUTHRIE *v.* WAKLEY.

Wednesday, Jan. 23.

Upon reading the consent of the attorneys for the defendants, it is ordered that the plaintiff do, and shall pay to the defendants, or their attorney, costs to be taxed by one of the prothonotaries of this Court, and upon payment thereof, that the plaintiff have leave to discontinue the proceedings had in this action. By the Court, at the plaintiff's instance.'

In pursuance of this rule, one of the prothonotaries of the Court taxed the costs as between *party and party,* in the presence of the attorneys for plaintiff and defendant, and the amount then ascertained was paid in a week, or ten days, afterwards.

We direct your attention to the words party and party, because there are two modes for the taxation of costs. Under that adopted in your case, the fees paid to counsel for consultation were not allowed, nor, in fact, were the whole of the fees paid to your advocates, on the delivery of the briefs allowed. You will understand, therefore, that the difference of expense arising from taxation of the costs as between party and party, instead of as between attorney and client, must be borne by you, notwithstanding the plaintiff has discontinued the proceedings. This was one of the many topics touched by Mr. Brougham, in the House of Commons, in his elaborate speech on the state of the law; and one which, in his judgment, calls for a remedy, inasmuch as an individual having no right whatever to bring an action, may nevertheless institute one; and though he subsequently abandon it, and pay the costs, yet the rule imposing the payment of costs in such a case, does not compel the liquidation of *all* the costs incurred by the opposite party, or, in other words, does not render the seceding party liable to the costs, as between attorney and client.

We remain, dear Sir, yours truly,

FAIRTHORNE AND LOFTY."

THE LANCET.

London, Saturday, March 8, 1828.

When our readers shall have perused the extraordinary correspondence, which occupies so large a space in our present Number, they will, perhaps, be of opinion, that it requires no comment. Comment, however, we pledge ourselves that it shall receive; and *that* upon a scale commensurate, not, indeed, with the importance of Mr. Guthrie—for he is a person about whom the public is probably not over-anxious, and upon whom we should not deem it worth while to bestow much of our attention—but with the necessity which is imposed upon us as independent medical journalists, of noticing all occurrences which are calculated to throw light upon the workings of a baneful and corrupt system.

Last week, Roderick Macleod addressed a letter to *himself*, in which he states, that he is ashamed of part of his conduct pending the action which he recently brought against The Lancet. In moral diseases, shame is a good symptom. *Macte tuá virtute,* Roderick! Blush on, Yellow Goth, and we shall not despair of hearing that you are ashamed of the whole of your conduct!

When we noticed, at the beginning of the year, the demise of Dr. James Johnson's Quarterly Journal, we also stated, that, although the Doctor had given up the ghost in one sense, his perturbed spirit was not entirely laid; that, instead of expiring gracefully as he was bound to do, after one of the most candid* acknowledgments that his brains were exhausted, which was, perhaps, ever made by a public writer, he still manifested an inclination to haunt the few remaining victims of his quarterly visitations, and actually threatened to publish something twice a month, which should, he protested—and we implicitly believed his protestation—be just as good as the old Quarterly Journal. He even went a step further; and taking an accurate measure of the understanding of the guests whom he could prevail upon to accept an invitation to his literary banquet, assured them that, if they liked quarterly journals, they might continue to look upon the farrago, which he intended to put forth at short intervals, as a quarterly journal, *published once a fortnight!* To this interesting piece of intelligence, we gave a place in our Journal at the time the Doctor's Quarterly expired; but we have not had occasion to mention directly a circumstance which is, we are aware, a profound secret to the great body of the profession, namely, that the threat of resuscitation was not such an empty menace as it was supposed to be, and that the blood-stained ghost of the late Quarterly has been seen, at the intervals at which he threatened to appear, by about fifty witnesses, who are ready to bear testimony to the fact. The form in which the ghost appears differs externally so much from that of the deceased Journalist, that it is only by dint of minute inspection, that we recognise it to be, indeed, the spirit of that unfortunate individual. It is well known, that the late quarterly Journalist died of excessive phlebotomy; *abuse* of THE LANCET was the fatal error, which had given an irreparable shock to his constitution; and though he would every now and then rally, and appear among his friends with a little flesh upon his bones, yet, whenever he was congratulated upon that circumstance, he would shake his head, and observe, in a way which carried conviction of the melancholy truth, that there was nothing in it. There was this peculiarity in the Doctor's case, that, although he affected to inveigh with great bitterness against THE LANCET, as the instrument of his destruction, he, nevertheless, persisted to the last in having recourse to it; and while his dissolution was fast approaching, it seemed as if he was indebted to a copious use of THE LANCET for all the appearances of health and vigour that yet remained to him. Be that as it may, his ghost, if we may venture to speak of the comparative merits of men's apparitions, has all the air of a ghost, which had been fairly starved out of its corporeal tenement. Meagre and unsubstantial as was the quarterly farrago, the fortnights' fasciculus or bundle of rubbish, which has succeeded it, presents a wretched contrast even to its famished predecessor. It is the penumbra of a farthing candle—the shadow of a shade. We may observe, however, that the ghost still retains the propensities which characterised the deceased quarterly Journalist. It still petitions for eleemosynary subscriptions, and is still seen "to stretch the asking hand," though with diminished confidence, and upon a scale of supplication better suited to its reduced condition. "For little more than *fourpence sterling*," it exclaims, "our readers have got the substance of some octavo volumes. (Fascic. p. 309.) Alas, poor ghost! thou beggest hard for a bawbee; but, albeit, thy cravings are moderate, we can give thy ghostship but little encouragement, for there is an unmannerly prejudice in the world against such commodities as thou canst offer; and thy articles, like stale mackerel in midsummer, may be dear at any price.

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* After acknowledging, in the address announcing his own demise as a quarterly journalist, that he had been anticipated and forestalled by his contemporaries, the Doctor adds,—

"We were brought into the field of competition for priority, with one or both our hands tied behind our backs. Under such disadvantages, it is wonderful that we should have stood our ground."

There is a pathos in this passage, which almost disarms criticism; we should otherwise be tempted to remind the Doctor, that there is a class of persons, who, according to the proverb, are always under the influence of *wonder*.

Lest the re-appearance of Dr. James Johnson, the *ci-devant* editor of a quarterly farrago, in the shape of a publisher of fortnights' fasciculi, or bundles of rubbish, should be doubted by any of our readers, we shall insert a letter which has been addressed by Mr. LAWRENCE to the Doctor, as the publisher of these fasciculi or bundles; and, in the few remarks which we shall have to make on this subject, we shall deal with the Doctor as with a living journalist, saving to ourselves, however, the right of treating him hereafter, for the manifold reasons to which we have already adverted, as the ghost of the Dr. James Johnson, who once edited a Quarterly Journal.

MR. LAWRENCE TO DR. JAMES JOHNSON.

18, *Whitehall-place*, 13th *Feb*. 1828.

SIR,—A friend of mine, who reads your periodical publication, has sent me the two last Fasciculi, calling my attention to two statements which they contain respecting myself. As you address to me, in one of these, a kind of challenge either to admit or deny it, and as both are contrary to fact, I think it necessary to notice them; and I beg that you will insert this letter in your next Number, that my contradiction may reach those who have seen your erroneous assertions.

In your comments on the case of Mrs. Denmark, you say "we have been informed, on the very best authority, that, on the very day after the operation, and afterwards on the 10th or 12th day, consequently before the ligature came away, the pulse was distinctly felt by Mr. Lawrence and others in the right arm. If this information be incorrect, Mr. Lawrence can easily contradict the statement, when we will give our authority, who also felt the pulse."—*Fascic*. II. p. 469.

I did not see Mrs. Denmark on the day after the operation, nor within a week of that time. I have seen her only once since she was operated on, namely, about the 10th day. I then visited her with Dr. Tweedie, at the invitation and in presence of Mr. Wardrop, of whom she was a private patient. I do not remember the details of her symptoms at that time, having no inducement to make minutes of a case under the care of another gentleman; but the impression on my mind is, that a feeble pulsation could be felt in the right radial artery. I am not certain whether I ever saw Mrs. D. before the operation; if I did, it was without having the opportunity of inquiring minutely into her case, or forming an opinion respecting the treatment that it required.

In describing the case of J. Nowlan, you say "on the 13th day he was better, but the eye-ball was found to be greatly protruding, which was attributed, by Messrs. Lawrence and Wardrop, to a powerful compression on the brain, exercised by an aneurismatic state of the vessels of the dura mater, communicating through the skull with the tumour on the head.—*Fascic.* III. p. 500.

I never entertained nor expressed any such opinion.

Having thus taken the trouble of contradicting two misstatements, because they involve others as well as myself, I beg that your readers will not consider that I admit the correctness of those representations which I leave uncontradicted. Your report of the proceedings at the Medical and Chirurgical Society, contained in the same Fasciculus, which ascribes to me the absurdity respecting the case of J. Nowlan, would alone render it necessary for me to enter this protest. I shall make no remark either on the correctness of that report, or on the kind of taste and feeling which it displays. The former will be best estimated by those who were present at the meeting, while I doubt not that the latter will be properly appreciated by your readers generally.

I remain, Sir,
Your obedient servant,
William Lawrence.

Dr. James Johnson.

In contradicting the misstatements in Dr. James Johnson's Fasciculi, Mr. Lawrence has undoubtedly taken the only course which could possibly attract any degree of attention to them, and accordingly we find the Doctor eager to turn to account* the condescension of that distinguished member of the profession. He has published Mr. Lawrence's letter, and appended to it what he calls a reply. We have had too frequent experience of the Doctor's method of conducting an argument, not to be prepared or him when he announces that he has a complete answer to his adversary's case. We are familiar with the Doctor's tactics, since the unprovoked attack made upon The Lancet, when our journal was yet in its infancy, called us early into the field of controversy, and imposed upon us the task of exposing the ignorance, the imbecility, and the literary dishonesty, which characterised the late Quarterly Journal. As a journalist, the Doctor had all the morality, without a scintilla of the intellect, of Machiavel. Detected in misrepresentation, his resource was a subterfuge; and when his subterfuge was exposed, he had again recourse to misrepresentation. But his bad faith as a controversialist, was, in a great measure, neutralised by his feebleness, and his desire to make dupes of his readers, was counteracted by his want of power to deceive. In his method of arguing, he resembled a clumsy sharper, who, with all imaginable disposition to slip a card, has not sufficient quickness to elude the vigilance of the spectators. He was disingenuous without plausibility, and dishonest without dexterity. He had the wriggling lubricity, without the cunning of the serpent. Such was the editor of the late Quarterly Journal. Let us now see whether the literary character of the publisher of fortnights' fasciculi, or bundles of rubbish, resembles in any respect that of the late Quarterly Journalist. We shall begin with the second misstatement, noticed in the foregoing letter of Mr. Lawrence, because the Doctor's answer to that part of the letter, is founded upon an allegation that he copied the paragraph in question from the pages of The Lancet. Now let the reader compare the passage relative to Nowlan's case, which is quoted and commented upon by Mr. Lawrence, with the following observations of our reporter, which are quoted by Dr. James Johnson in his reply, and which, as he affirms, bear out the assertion that Mr. Lawrence attributed the protrusion of the patient's eye-ball to an aneurismatic state of the vessels of the brain. It is necessary to premise, that the symptoms under which Nowlan laboured, were stupor, delirium, and blindness, and that these symptoms were *followed*, on the thirteenth day, by protrusion of the eye-ball from the orbit.

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* In his advertisements we have "literary *collision* between Mr. Lawrence and *Dr. Johnson*!" Oh dear!

> "Mr. Wardrop and Mr. Lawrence were inclined, however, to take a very different view of the symptoms, and to ascribe them to a morbid state of the brain itself, arising, in all probability, from an aneurismatic affection of those vessels of the dura mater which, by passing through the cranium, communicate with the superficial arteries of the head, forming, in fact, internally, a part of the disease which was so conspicuous outwardly, and thus by their enlargement, exerting a powerful compression on the brain itself. This opinion was highly corroborated by symptoms AFTERWARDS noticed, viz. by the great protrusion of the eyeball, and by the circumstance that the thrilling pulsation was most observable in the centre of the tumour, at that point where the cranium appeared almost completely absorbed, and where, in all probability, the freest communication existed with the vessels supplying the membranes of the brain."*—LANCET, 6th Oct. 1827.

It is evident, from the above passage, that the opinion ascribed by our reporter to Mr. Lawrence and Mr. Wardrop, has reference, *not to the protrusion of the eye-ball*, but to the symptoms which *preceded* that protrusion, namely, stupor, delirium, and blindness. He states, that Mr. Lawrence and Mr. Wardrop were inclined to attribute these symptoms to an aneurismatic state of the vessels of the brain; and he goes on to observe, *proprio marte*, of his own suggestion, that this opinion was corroborated by the protrusion of the eye-ball, AFTERWARDS noticed. Observe, reader, the word AFTERWARDS, and then decide upon the literary honesty of Dr. James Johnson. The Doctor's defence to the charge of misrepresentation is, that he copied the misstatement commented upon by Mr. Lawrence from our report; whereas it appears on the very face of that report, that the symptoms *preceding* the protrusion of the eye-ball, and not the protrusion of the eye-ball itself, were stated to have been ascribed by Mr. Lawrence to an aneurismatic state of the vessels of the brain. Our reporter, indeed, considers the subsequent protrusion of the eye-ball, as a circumstance tending to corroborate the conjecture of Mr. Lawrence and Mr. Wardrop; but this is his own reasoning, for which, whether judicious or injudicious, Mr. Lawrence of course is not responsible. Dissection showed, that the protrusion of the globe of the eye was occasioned immediately by the formation of matter behind it; but, *à priori*, there was nothing extravagant or improbable in the conjecture ascribed to Mr. Lawrence and Mr. Wardrop, or in the inference drawn by our reporter in favour of that conjecture. The question, however, is, not whether our reporter's reasoning in favour of a particular hypothesis was plausible or injudicious, but whether he made Mr. Lawrence express an opinion, that the protrusion of the eye-ball arose, in all probability, from an aneurismatic state of the vessels of the brain. He did no such thing; and Dr. James Johnson, therefore, stands convicted, not only of the original misstatement commented upon by Mr. Lawrence, but of a disingenuous attempt to exonerate himself from the charge of misrepresentation, by asserting, that he copied that misstatement from THE LANCET.

We now come to the Doctor's reply to the first misstatement noticed by Mr. Lawrence. The assertion, as to the pulse of Mrs. Denmark having been felt by Mr. Lawrence on the day after the operation was made, it will be observed, with an air of extraordinary confidence.

> "We have been informed," said the Doctor, "on the very best authority, that on the very day after the operation, and afterwards on the 10th or 12th day, consequently before the ligature came away, the pulse was distinctly felt by Mr. Lawrence and others, in the right arm. If this information be incorrect, Mr. Lawrence can easily contradict the statement, when we will give our authority, who also felt the pulse."—*Fascic.* ii. p. 469.

To this Mr. Lawrence replies, that he did not see Mrs. Denmark on the day after the operation, nor until about ten days after that time, and the following is Dr. James Johnson's rejoinder:—

> "In respect to Mrs. Denmark's case, the pulse *was* felt in the right arm on the *very day after* the operation by Dr. Barry and others, (who have made no secret of it,) on the tenth day by Mr. Lawrence, according to his own admission. The facts, therefore, respecting the pulse, are strictly correct."—*Fascic.* ii. p. 525.

Let us put this argument into the shape of a syllogism, and see whether any specimen of that ingenious method of reasoning, which SHAKSPEARE has put into the mouths of his grave-diggers, is at all comparable with the argumentative gem supplied to our hands by Dr. JAMES JOHNSON. It is a stroke of ratiocination, whereat the YELLOW GOTH might well turn pale with envy; or, rather, it is a *coup de tête*, so entirely in Roderick's own style, that the two Scotch Dubs might henceforth do well to unite their fasciculi, and come forth like the two kings of Brentford, smelling to the same sulphur on each succeeding Saturday, and allaying cutaneous irritation with one hand, while their white wigs are gracefully waved with the other. But proceed we to the syllogism.

Dr. James Johnson asserted, that Mr. Lawrence and others felt Mrs. Denmark's pulse the day after the operation.

But, though Mr. Lawrence did not feel the pulse the day after the operation, Dr. Barry and others did.

Therefore, Dr. James Johnson's assertion was STRICTLY CORRECT.

The Doctor's argument has every merit, except that of originality, for it is evidently borrowed from Joe Miller, as we were reminded the other day at Callow's, by that facetious personage JOE BURNS. It is the old story of the man, who, seeing an advertisement in the newspapers for a teacher of the German language, immediately offered himself for the situation, assuring the advertiser, that though he knew nothing of that language himself, he had a brother who made excellent German sausages, and a cousin who was an unrivalled performer on the German flute. "I asserted," it is true, says the Doctor, "that Mrs. Denmark's pulse was felt by Mr. Lawrence on the day after the operation; and, in point of fact, though the pulse was not felt on that day by Mr. Lawrence, it *was* felt by another person; what possible difference, THEREFORE, does that make, as to the strict correctness of my assertion?"

It is in the article which has drawn forth Mr. Lawrence's letter, that Dr. James Johnson, with his accustomed erudition, talks of tying the artery *ultra* and *citra* ANEURISMAM. This blunder is not committed in a solitary instance, for in that case it might, by possibility, have been attributable to the printer, but it is repeated five or six times in the course of the article. We noticed this, and some other specimens of the Doctor's ignorance, on a former occasion; and we have since received a letter, with the contents of which we suspect the Doctor is not unacquainted, putting it to our candour to say, whether the errors upon which we commented are any substantial impeachment on the Doctor's professional skill, and whether the severity with which we animadverted upon them is not calculated, by holding up such a person as the Doctor to ridicule, to do injury to the profession at large. To this communication our answer is, that no injury can ever be done to the profession by exposing *quackery*; and Dr. James Johnson's pretensions to classical learning are founded in empiricism. We do not deny that a man may be as despicable a scholar as Dr. JAMES JOHNSON, and yet a skilful medical practitioner; but with what grace, we will ask, is an argument *ad miseri cordiam* addressed to us in behalf of a man who voluntarily *writes himself down* the quadruped indicated by Dogberry; who travels out of his road to display his want of classical education, and who courts with curious infelicity opportunities of exposing himself to derision. Had the Doctor written the words "beyond the aneurism," in English, which was the obvious course, he would have remained, in this instance, at least, undetected; but he must needs show his erudition by putting these words into Latin; and the consequence is, that there is scarcely a school-boy on this side the Tweed, who is not able to laugh at his vanity and his ignorance. Were we not amply justified, then, in likening the Doctor's blunder to that of the well-known barrister, who, in order to avoid the cacophonous termination of the word *mandamuses*, convulsed the bench, and the majority of the King's Bench bar, by humbly moving their Lordships for two MANDAMI? The errors of Dr. James Johnson are not of that description which

> - - - - - "Aut incuria fudit,
> Aut humana parum cavit natura;"

but they are the genuine offspring of vanity, and presumptuous ignorance. Take, for instance, the following specimen, which we quote, because the page lies open before us, being that in which he supplicates his subscribers for the sum of *fourpence* sterling (Fascic. p. 309).

> "It is nearly two thousand years since Horace humorously described the FACT of "nemo contentus," but he has not been very happy in ascertaining the true cause. Were we disposed to enter into metaphysical, or rather physical, investigations, we think we could elucidate the etiology of this contrariety in human nature, by somewhat more satisfactory reasons than the Roman satirist has adduced; but into these domains we dare not venture in this place."

This passage furnishes a good illustration of the Doctor's empirical erudition. We have here the slip-slop quotation, "nemo contentus;" the ridiculous attempt at display, in the use of the word "etiology;" and, lastly, by way of finish to this *niaiserie*, we have the interesting intelligence, that the Doctor considers himself better able to account for certain moral phenomena, than one of the keenest satirists and most accurate observers of men and manners, that any age or country has produced.

In page 448 of the same Fasciculus, or bundle of rubbish, we have another quotation, and, of course, another specimen of the Doctor's erudition:—

> "Cantare pares, et RECANTARE parati."

Again, in page 456:—

> "Solem quis audeat falsum dicere."

Here the doctor has got the right number of words, and none of them are mangled; but still he will find, upon making inquiry of some one who can let him into the secret of his ignorance, that his usual fatality has attended him. The truth is that a blockhead, who attempts to palm himself upon the public for a man of learning, plays with penknives, and cannot choose but lay himself open to derision.

In a case like that of Dr. JAMES JOHNSON, it is idle to talk of the unmeasured severity of the castigation which we apply to him; for you must "skin a Muscovite to make him feel!" But we are weary of exposing a writer so ignorant, and imbecile, and so destitute of literary honesty and good faith, as the editor of the late Quarterly Journal.

DR. BLUNDELL'S CASE OF EXTIRPATION OF THE UTERUS.

WE are much gratified in being enabled to communicate the most satisfactory intelligence respecting this case; the patient, up to the present period, the sixteenth day, has not had a single untoward symptom. There has been, throughout, very little discharge from the part, and the wound is healed to within the extent of a shilling; the woman is free from pain; she sleeps well, and her appetite is good.

In our last notice of this case, we stated that she was upwards of *forty* years of age; but we find that she is *fifty*; and it is important to mention, that she had ceased to menstruate.

WESTMINSTER MEDICAL SOCIETY.

March 1, 1828.

Dr. Somerville, in the Chair.

Dr. James Copland, this evening, adduced his views respecting the pathology of fever. The substance of his opinions was, that the morbific matter, which he considers is introduced into the system, and generates fever, first makes its impression on the ganglionic nervous system; and, subsequently, the parts held in dependence to these nerves become affected. He contended, that in all cases of fever, there is, at the commencement, a depression of the vital powers, referrible to an affection of the nerves, which preside over organic life; that the derangement of circulation, secretions, &c., which ensues in the second stage of fever, is consequent upon this disturbed state of the presiding nervous power. With respect to the treatment, Dr. Copland considered it under three divisions; firstly, the stage of depression; secondly, of excitement; and thirdly, of collapse, and recommended the adoption of measures suitable to each. In the last stage of fever, he had seen spirit of turpentine very beneficial; also, friction of the body, with camphorated liniment, containing a portion of cayenne pepper.

Dr. Barry argued in support of the opinion, that the fluids are the parts first affected, and that the nervous system suffers in consequence. He inquired of Dr. Copland, (who had asserted, that the morbific matter productive of fever, is chiefly taken in by the lungs,) how it happened that the fibres of the pneumo-gastric nerves were not affected, and the ganglionic plexus alone disturbed. Dr. Barry, in reference to the practice of giving emetics, as recommended by Dr. Copland, remarked, that although it was strongly condemned by Broussais, yet he had seen emetics employed on a large scale in Portugal, and with great success. It is so customary, he said, in that country, to exhibit an emetic in the early stages of fever, that a room is kept in each hospital for the sole purpose of receiving patients, all of whom undergo the action of vomiting as a preparatory measure. Subsequently, a saline draught, with an equal quantity of decoction of bark, is administered every second hour, alternating with a cupful of chicken broth. Bloodletting is seldom had recourse to; blisters are occasionally used.

Dr. A. T. Thomson spoke at considerable length in support of Dr. Copland's hypothesis.

Dr. Johnstone contended, that we have no clear evidence of the nervous system being the part first affected in fever, the derangement of the vascular system being in many instances concomitant. In illustration of the position, that "a poisonous leaven is introduced into the blood," he referred to small-pox and other exanthemata.

Mr. North expressed his opinion of the inutility of the discussion, observing, that when a practitioner comes to the bed-side, he does not sit down to inquire into the abstract nature, or essence of fever, and if he really were to do so, it would not avail in the treatment.

Mr. Lambert concurred in the opinions of the preceding speaker; he considered the discussion to be even "worse than useless," the subject of argument being in its nature incapable of demonstration, must, and would ever remain, a mere matter of opinion; the hypothesis might, or might not be true.

Dr. Ley wished to draw the attention of the Society to a practical view of the question, namely, as regards the possibility of "cutting short" fever.

Dr. Barry and Dr. Thomson commented with considerable warmth on those gentlemen who had asserted, that the subject of discussion was useless, the latter observing, in the course of his speech, that he remembered Dr. Black, of Edinburgh, exhibiting a small gas lamp, and at the same time saying it was only a "philosophical toy."

The debate towards the latter end became very interesting, chiefly from the warmth manifested by the contending speakers. Dr. Barry's last speech being a little extravagant, excited roars of laughter. It was ultimately agreed that Dr. Copland should bring forward the subject on the ensuing evening, in order that he might have the right of reply, which he was prevented from obtaining, by the time of the Society having elapsed.

LONDON MEDICAL SOCIETY.

March 3, 1828.

Dr. Haslam, President, in the Chair.

There was a general meeting of the members of the Society this evening, prior to the anniversary dinner, for the purpose of elect-ing new officers, &c. It gives us much satisfaction to state, that the Society is in a flourishing condition; there has been a large accession of members during the past year, and the balance of money in the treasurer's hands is considerable.

At the conclusion of the balloting, the President called the attention of the members to a law which exists in reference to the Prize Essay, viz. "that it shall be read before the Society, at the meeting preceding the anniversary." The gold medal, called the *Fothergillian* medal, it seems, has been awarded by the council to a Mr. Perry, for a paper on diseases of the rectum; it therefore became necessary, to the fulfilment of the law, that the paper should be read on the present occasion. This was accordingly done by the registrar, but it was found that the time of the Society had expired before one half of the Essay was concluded, so that, as Dr. Haslam remarked, the members at large had not an opportunity of appreciating a production which they are about to honour, at the recommendation of the "Council of Seven."

[We do not profess to be in possession of the secrets of the Council, but there certainly is a degree of mystery attached to the awardment of the medal for the Essay in question, which we shall like to see removed.]

ROYAL INFIRMARY, EDINBURGH.

FRAMBŒSIA.

The singular disease to which this name has been given, in the absence of one more expressive of its character, in the systematic nomenclature of cutaneous affections, occurred in the person of Mary Goodfellow, aged seventeen, a native of Dumfries, and admitted into the hospital on the 4th Dec. 1827. In the fold of the groin, there was a tumour of an elliptical shape, about the size of half a large lemon, of a bright red colour, granulated on the surface, and covered with a glairy semi-transparent secretion. The roe of salmon, a quantity of raspberries of the same size, or a mass of healthy granulations of similar extent, furnish, perhaps, the best objects of comparison to render its appearance intelligible, without the assistance of a drawing. In the axilla, on the fold of the great pectoral muscle, there was another tumour of the same kind, but much less, being about the size of a large strawberry; and, at the commissure of the lips, the bend of the arm, and many parts of the body, the disease appeared, but in a more undefined form, being in some places confined to a mere red speck, without any elevation of the cuticle. The account given of its origin and progress by the patient and her friends, was contradictory, and perhaps unworthy of credit. She stated, that it first commenced on her side when only two years of age; while her mother averred, that it first appeared so late as six months before her admission; and, to make both statements agree, it was subsequently said, that the affection began when a child, but that it had assumed its present aspect in harvest last. It was admitted, however, that she had been taking mercury at Dumfries; but whether for this or some previous affection, could not be ascertained. The ambiguity of its history, its resemblance to some cutaneous affections consequent to syphilis, and the circumstance of mercury having been taken, induced Dr. Ballingall, under whose care the patient remained in the hospital, to consider it of a venereal character; but with the true syphilitic intertrigo, occurring on those parts of the body where the skin forms folds; or with any of the forms of condyloma, which the writer has seen in practice, or described by authors, it could not, for many reasons, be classed. The disease to which it bore most resemblance, is certainly the frambœsia, or sibbens, as it occurs in Scotland; though, in many respects, it differed from the descriptions drawn of the progress and appearance of this affection, having assumed neither the popular pustular, nor tuberculated aspect, while in the hospital. Consistently with his ideas of its origin, Dr. Ballingal, after having extirpated the small excrescence in the axilla, the site of which cicatrised favourably under the occasional application of lunar caustic, salivated the patient freely with mercury for a fortnight, and had the tumour in the groin washed daily with a solution of the muriate of mercury. The disease, however, continued to increase under this treatment; no alteration having taken place during its continuance, except that some of the small granules on the surface of the tumour in the groin, daily sloughed off, and were again reproduced, and that a small ulceration at its base was beginning to appear. The mercury having failed, the patient, after its action had entirely subsided, was brought to the theatre, and the whole of the excrescence in the groin removed, with the cutis vera, in which it was situated. The operation was followed by smart fever; the pulse having risen to 136, the tongue becoming thickly furred, and accompanied by intense pain in the wound for a few days. By the usual means, these symptoms were subdued; the ulcer assumed a healthy aspect; is now entirely healed; her health much improved; but without any amendment of the disease in the other parts of the body.

ST. BARTHOLOMEW'S HOSPITAL.

AXILLARY ANEURISM.

John Laker, ætat. 37, admitted under the care of Mr. Lawrence; has a healthy constitution, dark complexion, broad shoulders, and robust muscular frame. He was formerly a sailor; but has been employed for the last few years in engine-making, well-digging, and other laborious work. About six months ago, and soon after receiving a severe blow on the shoulder, he began to experience a dull aching pain, with partial numbness, in the right arm and shoulder, which has continued to the present time. The pain was occasionally so severe and constant, that he was obliged to desist from work, and used to immerse the arm for several minutes in water from a cold spring, which always afforded temporary relief. Ten weeks ago the limb began to swell, and he consulted a medical person, who directed him to soak it in warm water, and to rub it with a liniment. He has noticed, during the last month or six weeks, a swelling and beating about the right shoulder. Ten days before admission, when the arm was much swelled and insufferably painful, he was bled to the amount of three pounds without fainting, and afterwards performed a hard day's work. Eight leeches were applied to the arm the same evening. From these measures he obtained great relief, with diminution of the swelling. During the last week he has been rendered incapable of attending to his business, in consequence of continual pain and stiffness of the arm.

September 7. Behind the upper portion of the right pectoral muscle, and extending upwards behind the clavicle to the root of the neck, is an imperfectly circumscribed elastic swelling, possessing all the characters of an aneurism. The upper edge of the swelling is distinctly felt about two inches above the internal end of the clavicle; its limits towards the root of the neck and the sterno-clavicular articulation cannot be ascertained; its lower boundary, where the three upper ribs are closely involved, is nearly indefinite. No prominent tumour presents itself, but, on comparing the shoulders, in a front view, an appearance of general fulness is observable; the outline of the clavicle is lost, and the hollow above it is obliterated, so as to form a striking contrast to the opposite side. The clavicle is not elevated; it may be easily traced with the fingers, but is in close connexion with the tumour, which it divides with a smaller superior and larger inferior portion. The coracoid process cannot be felt on the right side. There is no discolouration of the skin, but the veins in front of the chest and shoulder, and those of the arm, are considerably distended. The pulsation, which is perceptible to the sight, communicates a powerful impulse to the hand, and gives the feeling of forcible resistance to pressure. A vibratory thrill is communicated to the fingers on pressing above the clavicle, but no such sensation is felt in the lower part of the tumour. The heart beats naturally. When the ear is applied behind the right scapula, a powerful throbbing and whizzing sound are audible. Both carotid and temporal arteries beat naturally. The left radial pulse is about 70, moderately firm and full. There is some difference of opinion whether the pulse at the right wrist can be felt or not; at all events it is extremely feeble. The circumference of the entire arm considerably exceeds that of the opposite limb; its temperature is also augmented, and the muscular power greatly impaired. He complains of pain, particularly on the inner side of the arm, with a numbness of the fingers, manifestly arising from pressure on the nerves. The pain deprives him of rest at night. He has no cough, nor any unusual feelings in his chest. The voice, respiration, and deglutition are perfectly natural. Ordered to remain quiet in bed, and to have the milk diet. A dose of cal. and jalap, and afterwards the mist. sennæ comp.; saline medicine, with 10 minims of the tinct. digital. every six hours.

12. The general swelling and heat of the arm are increased, and the veins are more distented. The tumour beats more forcibly, and projects more before the clavicle. He has an anxious expression of countenance, and rests badly. Bleeding from the right arm to 16 oz. To continue the digitalis.

13. Was relieved after the bleeding, and rested much better last night. The blood flowed very freely, and is slightly buffed and cupped. His countenance is improved. The heat, swelling and vascular distention of the arm are less, but the veins remain unnaturally full. The right radial artery beats feebly, but distinctly. The pulse of the left wrist rather full, but natural in frequency.

14. Increase the dose of digitalis to 15 minims.

18. Complains of headach, and severe pain in the arm. The whole limb is hot, and swelled. The pulse is full, strong, and about 60. Bleeding from the right arm to 16 oz. The blood is a little sizy.

19. Much relieved. The pulse is softer, about 48, and intermits occasionally. The swelling, heat, and redness of the limb are reduced; and he can move the fingers better. Five grains of the ext. hyosciami. at night.

20. Slept better, and is altogether more comfortable, pulse 46.

21. The pulse is more frequent to-day, but very irregular; sometimes intermitting several beats. The tumour evidently increasing; the portion below the clavicle protruding to the size of half an orange. The thrill above the clavicle is more obvious. There is a depression of the swelling in the situation of the clavicle. The pain in the arm, and other symptoms, are better. Discontinue the digitalis.

24th. The pain has been less acute, and the swelling of the limb is reduced. The influence of the digitalis is no longer perceptible in the pulse, which is increased in frequency and force. To lose 16 ounces of blood from the right arm, and to resume the digitalis in the same dose as at first.

30th. Has been tolerably easy since the last bleeding; the pulse is soft, frequent, and irregular; the right radial pulse is weak, but can be felt distinctly; the limb is still a little warmer than natural, though it is reduced to the proper size. Above the inner condyle the arm is very painful, and will not bear the least pressure; the tumour is increasing, and projects more below the clavicle; his general health is not impaired, though his sleep is much interrupted.

October 31. Since the last report, the tumour has been gradually increasing, and extending below the clavicle towards the shoulder. In the upper portion of the swelling, the *bruit de soufflet* is distinctly perceptible, both to the naked ear, and with the stethoscope, and exactly resembles the blowing of bellows. A similar sound, though less distinct, can be heard throughout the aneurismal tumour. The pulse of the right radial artery can sometimes be plainly felt; sometimes it is less distinct, and, occasionally, cannot be perceived. Neither the symptoms of this case, nor the most careful examination of the thorax, both by percussion and auscultation, mediate and immediate, indicated the existence of any disease within the chest; Mr. Lawrence therefore pronounced his decided opinion that it was an external aneurism. For the last two or three days he has had increased pain in the swelling and arm; his pulse has become more full and frequent, and his nights more sleepless. He was bled to 16 ounces, which procured temporary relief. (Continue the digitalis and hyosciamus night and morning). No material alteration occurred, excepting the gradual increase of the swelling, and other symptoms occasioned by it, as the impaired feeling, partial loss of motion, and swelling of the arm and fore-arm, until the latter part of November, when the pulsations in the tumour were observed to be much less distinct; the *bruit de soufflet*, both below and above the clavicle, was less plainly heard, and soon afterwards altogether ceased; and the thrilling sensation above the clavicle was no longer perceptible. The swelling became stationary, and it felt more firm; the pulsations of the radial artery much less distinct, and generally felt with difficulty; the swelling, pain, and numbness of the limb were greatly diminished; he could move it more freely, and grasp more firmly. He expressed himself much improved; his pulse was quiet, and his nights less disturbed. He continued in the same favourable state until the commencement of January 1828, when the pulsation in the tumour was scarcely distinguishable; it was more firm and hard; its size was, however, increased, and he complained of pain in the shoulder-blade, which he attributed to change of weather: he had also a slight cough and irritation about the trachea, but there was no pain in the chest. The pulsations of the right radial artery could not be felt; the swelling and numbness of the arm began to return. Continue the mixture and pills.

January 15. The swelling has suddenly and rapidly increased, extending towards the trachea and sternum on one side, towards the axilla on the other. No pulsation can be felt in it. The arm has again swelled. He complains of tickling in the throat, and the cough is occasionally very troublesome. The voice is hoarse and thick.

17. The swelling, and all the symptoms dependent on it, are much increased. The pulse is frequent and full. V.S. ad ℥xvj.

19. Has passed a restless night, with very troublesome cough, and great pain in the right shoulder. The swelling and numbness of the arm and fingers are much worse, and he is wholly unable to move them. The tumour enlarges in all directions; and has become tense and shining, with a net-work of considerable sized veins ramifying over it. Pulse 120; hard. V.S. ad ℥xvj. Cold cloths to the swelling—continue the digitalis.—Tinct. opii gtt. xxx. omni nocte.

25. The opium has procured rest, and the cough has been relieved. The tumour has continued to enlarge: it now completely fills the axilla, and extends backwards to the scapula—anteriorly it reaches the nipple. The skin is very distended and shining, and the cutaneous veins very numerous and turgid. The whole upper limb is enormously swelled, and the whole side is œdematous, down to the ilium. The face and neck are also swollen on the same side, so that he raises the upper eye-lid with difficulty. The voice and cough are much better, but his nights are very restless, and he requires an increased dose of opium. Pulse 120; tongue coated; thirsty.

February 4. All the symptoms are much aggravated; the tumour still enlarges between the scapula and chest; the arm of an immense size, and acutely painful; and there is a large slough at the back part of the scapula, produced by lying, and the weight of the swelling. His countenance is expressive of great anxiety, and features shrunk; pulse frequent and sharp: drachm doses of laudanum are given to procure sleep. He continued gradually to grow worse, until the 8th, when his pulse became intermitting and very feeble: he was extremely restless, and occasionally had delirium: he afterwards relapsed into a state of coma; respiration became short and difficult; body covered with cold perspiration, and he died on the 9th of February.

Examination.

This was conducted, in the operating theatre, by Mr. Lawrence, who pointed out the principal circumstances at the time, and afterwards carefully dissected the parts, and demonstrated them to the pupils.

The swelling, which had been tense and shining during life, was shrunk, fallen in, and wrinkled, as if the contents had escaped. It consisted of an enormous aneurism, of which the root of the neck and the clavicle, the anterior and lateral portions of the chest, the entire concavity of the scapula, and the pectoral muscles were the boundaries. It reached to the middle of the sternum in front, and below the inferior angle of the scapula behind. It contained about three pints of recently coagulated blood, loose in the cavity, with some fibrine of variable thickness, adhering to the sides. The case, which had been originally a true aneurism, had become diffused; so that its sides consisted partly of the extended arterial coats, partly of the surrounding muscles and bones: the sudden increase of the swelling marked the precise time at which the arterial coats had given way, and the aneurism acquired its diffuse character. The upper portion of the cyst, consisting of the extended arterial tunics, had a smooth surface, without any adherent coagulum: this did not extend far, and the rest of the bag was formed by the muscles, and other soft parts, with the neighbouring bones; the former being condensed into a thin and imperfect cyst, by the pressure of the blood. At some points, however, the muscular fibres and nervous ramifications were exposed, when the coagulum was removed, nothing like cyst being perceptible. The pectoralis major, which had been greatly distended, was reduced to a very thin structure of fibres. The coagulum, lining the diffused portion of the aneurism, did not exceed the thickness of half an inch at any part; generally, it was much thinner: it peeled off easily, as if it had been recently deposited.

The anterior margin, and under surface of the clavicle, (partially denuded,) formed part of the aneurismal boundary; a small pouch extended behind the sternal end, into the lower part of the neck. The surface of the upper rib was considerably absorbed, and quite rough: it had been so much reduced in thickness, that it had given way at two parts, and was completely broken through in both places. The second rib was bare in a large extent of its surface. The aneurismal sac extended between these two bones into the chest, where it formed a large convex protuberance: its parietes consisted at this part, of the intercostal muscles much distended, and the pleura rather thickened. The right lung adhered firmly to the convexity of this swelling.

The entire axillary plexus of nerves was involved in the upper and back part of the swelling, so as to account satisfactorily for the impaired sensation and motion of the limb. Some of the nervous chords were flattened like tapes, and so incorporated with the original dense portion of the cyst, that they could not be separated: the rest retained their natural figure, but were firmly adherent to the swelling.

The aorta, arteria innominata, right carotid, and right subclavian arteries, were perfectly healthy. The axillary portion of the trunk opened into the sac, about an inch beyond the origin of the branches from the subclavian. The inferior orifice of the vessel was at about the same distance above the origin of the infra-scapular artery. The two orifices were about five inches apart, and connected by the smooth dense portion of the cyst. The upper opening was nearly circular; the lower was a long narrow slit, the size and figure of which accounted for the feeble pulsation at the wrist.

The heart and the left lung were healthy. The right adhered to the pleura, where it formed part of the aneurism, and exhibited, in the neighbourhood of this adhesion, but not elsewhere, a few small whitish tubercles. Mr. Lawrence, who examined the case, proposed the question, whether these tubercles were produced by the local irritation of the aneurismal tumour? The interstitial substance of this lung was anasarcous, and the air-tubes were filled with thin mucus.

The question of operation was agitated during the earlier period of this case. The extension of the swelling behind the clavicle, rendered it impracticable to tie the artery on the outer edge of the scalenus. A ligature might have been placed on the innominata, and the perfectly healthy state of this artery would have been favourable to the attempt. That the limb might be nourished, is proved by the cases in which it has been tied, and by an example which lately occurred in the hospital, of aneurism of the arteria innominata, in which the orifice of the subclavian was firmly and effectually closed by a dense mass of laminated coagulum. However, since no patient has hitherto recovered after ligature of this artery, there is little encouragement to undertake the operation, which would probably give no greater chance of saving life, than is derived from the probability of spontaneous cure. The artery might have been tied beyond the tumour. The ligature, in that case, must have been placed beyond the origin of the infra scapular, and circumflex arteries. Mr. Lawrence observed, that we have hitherto no direct facts in favour of such a proceeding; and that, in his opinion, the probabilities were strongly against the attempt.

In his observations on the case, Mr. Lawrence directed attention to the effect of the tumour on the chest. The clavicle prevents the aneurism from extending anteriorly, and thus it presses into the thorax. In a private case, where he attempted to tie the artery, but failed, in consequence of a small pouch extending just over the situation in which the ligature should have been applied, the first and second ribs were already partially absorbed, and there was a slight projection into the chest, although the external tumour was not larger than half an orange. In this case, the axillary plexus was involved in the tumour, causing most severe pain in the limb for many weeks, before any swelling was noticed. Hence the case had been deemed rheumatic, and had been treated by liniments, blisters, and shampooing, at Brighton. The injurious influence of the aneurism on the thoracic parietes, and on the nerves, is a powerful reason for operating early in these cases, if you operate at all.

ON THE FORM OF THE FOOT OF THE HORSE.

To the Editor of THE LANCET.

SIR,—As your pages are occasionally devoted to a consideration of the form and structure of the foot of the horse, I trust the following observations will not be considered inadmissible.

In your Number for January 12th, p. 572, you have given an extract from Mr. Bracy Clark's work on the foot, accompanied with certain observations, which, from their *extreme liberality*, I may be disposed to comment upon, after having submitted the following conclusions I have come to, after a careful perusal of the work in question.

At page 18, Mr. Clark commences with his description of the wall of the hoof. "The whole exterior *conical* part of the hoof is termed the wall; this *conical* horny covering is deepest or highest, we way observe, in front of the foot, diminishing in this respect to the quarters; it then considerably loses its *conical shape*, and becomes nearly upright, especially on the inside, or inner quarter, still growing narrower or lower to the posterior extremity of the foot; it appears, and is usually considered, as having its termination there, mixing with the matter of the frog, and descending, in an oblique slope, upwards and backwards, as does the front of the foot." And, in your quotation, Mr. Clark admits, that "in many feet, there is a small spread downwards," which small spread necessarily makes it *conical*.

Again: in page 111, Mr. Clark states—"The coffin bone of the horse, when perfected by its full and unrestrained growth, or as nearly so as I have yet been able to obtain it, presents, in its general figure, a *cone*, more nearly so than does the hoof itself that covers it, a form which gives greater freedom to its descent and movements in the hoof; for the hoof, as we formerly remarked, is a cylinder, very obliquely truncated, with a *small admixture of the cone* in its lower parts;" and on referring to the engravings of the sections of the foot, they are most decidedly represented as conical. I have inclosed a copy of one of the figures, representing "a perpendicular section of the open and natural foot."

Now, Sir, how Mr. Bracy Clark can so far deviate from his usual truth and perspicuity of description, as to state, the form of a horse's foot to be "truly a cylinder," or how he can reconcile the idea of a true cylinder having an admixture of the cone, I am at a loss to conceive.

In order to illustrate Mr. Clark's ideas, you have given a diagram, which you conceive will set the matter at rest; but I cannot compliment you on your good sense, in placing an unmeaning cone above the figure of the foot. If you had been truly desirous of giving a just comparison, you would have given a representation of the foot in a cone as well as cylinder, and, as a front view, similar to the sketches accompanying this: your readers might then have drawn their own conclusions from the comparison. I have examined many feet, and have universally found them of the *conical* shape, except in a very few cases, where a great degree of contraction has existed; and I presume you would not exhibit a foot in a state of disease as a specimen of the natural foot.

The most simple and obvious means of obtaining a knowledge of the form, is to apply a pair of callipers to the upper quarters at the coronet *a b*, and again at the lower quarters *c d*, and the difference in extent will show the amount of deviation from a cylinder, and which is clearly demonstrated by referring to Mr. Clark's perpendicular section, before alluded to. Many authors have written on the foot, and all that I have read, with the exception of Mr. Clark, consider the foot as conical; and, indeed, from the manner in which he makes use of the words conical and cylindrical, there is much difficulty in obtaining his true meaning, more particularly when we examine his plates.

It has pleased you, Sir, in your editorial capacity, and in the plenitude of your veterinary knowledge, to stigmatise Professor Coleman as a man having no true knowledge of the horse, and whose glaring ignorance renders him unworthy to teach the Gentlemen who attend his lectures. These, Sir, are serious charges, and ought not to be made without good and sufficient proof; and what is the amount of evidence you bring forward to substantiate them? Nothing, forsooth, but the simple, isolated fact of his differing in opinion from Bracy Clark, as to the shape of the foot. I would ask you, Sir, is this liberality?—is it impartiality?—nay, is it common honesty? If you have no other proofs to adduce than what has already appeared, I must conclude, using your own language, that your conduct is unworthy the patronage with which an enlightened public has hitherto so liberally supported THE LANCET.

A FRIEND TO TRUTH.

Reference to the Figures.

Fig. 1. A front view of a foot, showing its true conical shape.

Fig. 2. A front view, showing its presumed cylindrical shape.

Fig. 3. A perpendicular section of the frog-stay and the open and natural foot.—See Bracy Clark.

Fig. 1.

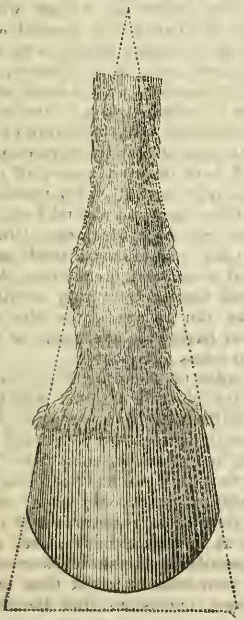
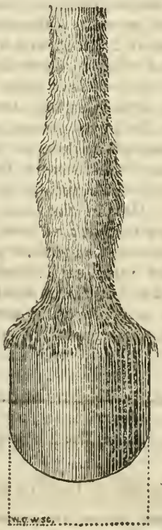


Fig. 2,



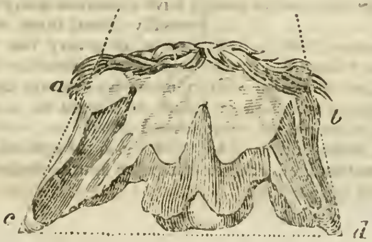


Fig. 3.

We readily admit, that a strong popular prejudice prevails against the new doctrine, and in favour of the old; and it is very natural that it should be so, since there cannot well be a more delusive object presented to the eye, than the horse's foot. We shall, however, unless we are very unfortunate, establish beyond any doubt, that the predominant figure in the hoof of the horse is that of a cylinder, though it is, as we have stated, a remarkable instance, when viewed exteriorly, of visual deception.

Mr. Clark was led to the discovery, as he says in his work on the foot, by handling the hoof, and the fitting of shoes to it, for nothing would have been more easy, than to have applied a shoe to it, and fixed it on without nails, if it had been really a cone; nothing more would have been necessary for this purpose, than to have slid the shoe on with braces by the side, passing up the cone, and afterwards fixing it by a lateral bolt; but the form always eluded his grasp, and led to the discovery, which now to him appears so simple, that he wonders how it is such a difficulty with others to apprehend.

That the hoof is really a cylinder, can be shown in several ways, the first proof that strikes you of it is, that the inflexions, or heels, obey the same line as does the front line of the foot, which never could have been the case if it had been a cone, as then the heels would have passed outward and backward, instead of inward, as they do at present: this alone would, to the mathematician, be proof direct of its being no cone. The great deception lies in viewing the hoof in front; and our worthy Correspondent, "A Friend to Truth," takes care to give you this view of it, and this only. Those who exhibit their feats in slight of hand, and who understand their business, will always place their company right in front; if they get to one side, success is precarious, but the trick is certainly discovered if they get behind the performer. He therefore has shown himself a good tactician.

The extract from Mr. Clark's work which we gave in a former Number of The Lancet, amounted to lucid evidence, and sufficient proof, of its being a cylinder, in a way that cannot be revoked, and to which we would wish again to direct the reader's attention, without ourselves re-stating it here. To those proofs we shall now add others, chiefly derived from his valuable labours; one of the most remarkable passages is the following, taken from his most ingenious account of the model of the horse's hoof, which is now received and admitted in all countries, and in his own, excepting one small spot, called the Veterinary College, and by its dependents, and also those who derive advantage by the examination of the pupils. The passage runs as follows: after stating the cylindrical form of the hoof, he observes, "There appears a strong reason, if we consider this cylindrical form, for its preference, since the cylinder possesses the property of embracing its contents more securely and firmly than a cone, which, enlarging downwards, would have been in danger of letting the foot slip through on any strong exertion of the animal, as the cone is ever presenting a wider area in that direction." Now what can be more convincing than this reasoning, which must carry, one should suppose, conviction to every reflecting mind.

We now pass from a consideration of these exterior proofs of its configuration to still stronger ones, derived from a view of the interior of the hoof, where a large share of the deceptive appearances on an external view are removed. And the first thing which strikes us on this interior examination, is the regular parallel direction of all that beautiful apparatus which, in the horse, is matchless, the *keraphylla*, or horn-leaves, which run perpendicularly from top to bottom of the hoof; and it must be particularly remarked, that they are perfectly parallel to each other, which could not have been the case had the hoof been a cone; to accommodate the cone, they must have diverged as they passed downwards, or otherwise their numbers must have increased to have filled the greater space. This fact alone is, we maintain, undeniable evidence of the hoof being no other than a cylinder; these beautiful parts would have lost their power of holding firmly the coffin bone, if they had in the least diverged, for half their force of adhesion consists in the attraction of well applied perfectly parallel surfaces. On looking all round the inside of the hoof, they are every where seen in this parallel state. Now can this be a cone?

We may also not pass over the simple circumstance, that the whole contents of the foot, after maceration, leave the hoof without any difficulty, when drawn out upwards, which could not have been at any rate so facile an operation, had it been drawn out of a cone.

Next, the fibres of the wall of the hoof are every where parallel to each other, as may be seen when laid open and properly exposed, that is, down to the sole; for after forming its connexion with the sole, in attaching itself to which there is often a sort of yellow, waxy horn thrown out, which appears superadded; and below this horn, being nearly or quite extra-vascular, is pressed by the weight of the horse often into a conical shape or divergence, which adds greatly to the optical deception accompanying this figure, and often gives to the hoof an appearance of being thicker, though in reality it is not so.

Let us now explain those apparent contradictions they have, rather unjustly, perhaps, charged the author of this discovery with. Because Mr. Clark, whose views are generally taken from a close examination of nature, admits, that after the direct or immediate box of the hoof terminates, having passed its adhesion to the sole, it will sometimes, especially in weak feet, dilate or diverge; this appearance, is represented by these very liberal objectors, as a contradiction, though it obviously is none; but it proves how accurately Mr. Clark has observed and described the natural foot.

Now, the 3rd figure referred to by the "Friend to Truth," is, in reality, taken from Mr. Clark's own work, but is also delusive as to the form of the hoof, and for this reason, that the intention was to give a striking view of the section of the frog-stay, and, therefore, a section is made perpendicularly through it, which section, obliquely across the axis of the hoof, makes a conical representation. Had it been made parallel to the plane of the axis of the hoof, it would have given a nearly cylindrical figure; but the frog-stay would have been represented less forcibly and interestingly. If, however, he had been perfectly candid, he might have found on the very same page, at fig. 3, plate 7, a view, showing the ruptured frog-stay, and causing running frush, and there the section is made nearly parallel to the axis of the hoof, and therefore the wall appears hardly visibly enlarging below. It will be readily admitted, however, that the posterior parts of the foot, from their general weakness, when compared with the front and lateral parts, and from the obliquity of the bars, do not maintain with so much regularity the cylindrical figure, which will sufficiently explain the appearance the plate represents, without at all subverting the general plan.

We cannot help being, in some degree, surprised, that these gentlemen, who catch at words so readily, and imply contradictions from them, contrary to the general sense of the writer, did not catch hold of a stronger apparent instance of contradiction in the works of Mr. Clark, viz. that although he maintains that the hoof is a cylinder, he makes it to be fitted with a bone, to wit, the coffin bone, which he expressly says is conical—how is this contradiction to be reconciled? As the explanation is curious, and full of instruction, we give it pretty nearly as he has stated it, in his invaluable work. He remarks, that the coffin bone being a cone, and the hoof a cylinder, between the one and the other in the upper region of the hoof, there would be a void space or vacuity, but that this interval or vacuity is beautifully filled up; or to use a carpenter's expressive phrase, battened out by the lateral cartilages, affording a yielding bed or cushion, against which all the regular and irregular motions and impulses of the hoof are neutralised and prevented from being injurious; and he further remarks, that where the cartilages are deficient, the want is supplied in a very extraordinary manner, by a thick elastic web, which battens out the remainder of these parts, and is the general filling up or impletive material of the spaces, and which, extending also over the cartilages, carries up on its surface the beautiful *podophylla*, or perpendicular leaves of the foot, which, internecting with the *keraphylla*, or horn-leaves of the inside of the hoof, form the most superb, the strongest, and the most beautiful arrangement that is to be found in any animal. In this way, the apparent contradiction is removed. Indeed, we confidently state, that Mr. Clark's labours are of that pre-eminent order that they are an indispensable guide and companion to every one calling himself a veterinarian.

The view formerly given in The Lancet of the foot, and the cone above it, and complained of by the Friend to Truth, still maintains its ground; he first calls it a diagram, which it is not; and then talks of its being an unfair representation, but how or why is not clearly made out: he next talks of the representation of the foot in a cone, as being more to his mind; and, in order to indulge him, we here insert such a figure, which, if possible, outrages the natural hoof in a greater degree than the former

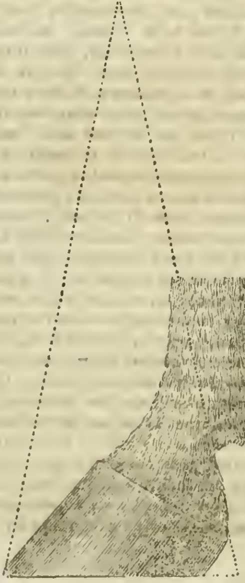


Fig. 4.

Now, as to his figure of the foot, given at fig. 1, represented on paper, it is perfectly delusive, and for this reason: that we see his outline comprehends the greatest swell of the hoof, viz. at the bottom of the quarters, and the parts of the coronet immediately above, or placed over them, will necessarily form a sloping or converging line, whereas the proper axis of the hoof is in a line with the fibres, and inclining, therefore, obliquely backwards, and, consequently, almost removed from the sight. As to the objection, that the remark of the cylindrical figure of the hoof is to be found alone in Clark's works, we think it no disparagement to him, but greatly to his credit, to have first promulgated this valuable and curious piece of intelligence.

Now this appears to be the whole amount of what this "Friend to Truth," our candid *examiner*, and who, we hope, is not an interested man, has been pleased to state.

As we cannot but consider this disquisition, respecting the real form of the horse's foot and its structure, of great interest to the public, and especially to those concerned in physiological and zoological pursuits, we shall not mingle with it any matter of a personal nature, as the "Friend to Truth" has done, but may just inform him, that, from all we can gather respecting the said Professor, we shall have much to augment the catalogue of his offences, rather than abstract one single point of what we have advanced already. We may now discover, that it is not a matter of such indifference, whether the hoof be a cone or a cylinder; as, in the one case, it would be weak, and let the foot through, and, in the other, it would hold it firmly on, and fully accomplish all its purposes, though thought to be of so little moment by our worthy correspondent Mr. Cherry. Since nothing is left to chance, so the horse's hoof is some determinate figure, there is no doubt; nor does it change, as "A Friend to Truth" appears to suppose, because he changes his view of it; or that it becomes of a different shape taken in front, or seen laterally. Certainly, it is either a cone or a cylinder; we say, for obvious reasons we believe it is the latter, which no view of it can ever change or alter; but, as the eye is easily deceived, admeasurement alone will ascertain the truth, and let him try it. If the hoof were really a cone, there would be no need of nails to keep on a shoe; it might be done by simply sliding it on with stays, and bolting it on the sides, as we have before stated.

The smallest portion of a cone or cylinder can be ascertained to be such, without any chance of error, whether such cone or cylinder be a mile in length, or only a foot.

FOREIGN DEPARTMENT.

ROYAL ACADEMY OF MEDICINE.*

29th of November.

IMPERFORATE VAGINA.

A girl, 14 years of age, was suddenly seized, whilst at a ball, with colic, accompanied with hysteria; a large tumour was situated in the abdomen, extending from the right hypochondrium to the left iliac region. On examining the external organs of generation, the vagina was found to be wanting. An operation was performed, which gave exit to some thick glutinous blood; the diameter of the canal was preserved sufficiently to admit the introduction of the little finger, and the girl completely recovered.

HOTEL DIEU. PARIS.

The trials made at the Charité to ascertain the effects of chlorine in cases of pulmonary phthisis, have not discouraged the physicians of other hospitals. Trials of this remedy have been made at the Hôtel Dieu, by M. Husson. He directed that a woman, who had been attacked for some time with phthisis, should inhale this gas. The new remedy did not improve her condition, and the patient died.

HOPITAL DE LA PITIE.

Dr. Bally has lately employed strychnine internally in paralysis of the bladder, and has obtained from its use very decided benefit. Three patients have been cured in less than a month by this remedy, given in doses from one-tenth of a grain, to two grains every four and twenty hours.

HOPITAL ST. LOUIS.

In this Hosptial there is a very remarkable example of the complete separation of the thumb. What distinguishes this accident from those which are related in the Memoirs of the Academy of Surgery is, that the rupture took place in the body of the bone, (first phalanx,) and not at the articulation. The tendons of the extensor proprius, and flexor longus muscles, were ruptured at their superior extremities. We shall publish the further details of this interesting case on another occasion.

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* Nouvelle Bibliotheque, Janvier 1828.

THE LANCET.

Vol. I.] LONDON, SATURDAY, MARCH 15. [1827-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY,

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Lecture XXI.

Of After-Floodings.

By after-floodings, Gentlemen, you are to understand, those discharges of blood which take place subsequently to the expulsion of the child, before or after the birth of the placenta. And as these floodings differ a good deal with respect to their circumstances, I propose to devote this Lecture to the consideration of their several varieties.

After the birth of the child, we sometimes meet with large discharges of blood from the uterus; and these discharges may either be produced by the presence of a portion of the placenta, which has been left behind in the womb unperceived by the accoucheur, or, without such retention of the placenta, they may now and then be occasioned by the lodgment of a clot of blood. That a part of the placenta is retained, we may suspect, if pains like those of labour occur—if, too, the discharges from the womb are fœtid, and if the bleeding have stopped and made its appearance again, perhaps some three or four days after delivery; and this suspicion once excited, provided circumstances require, an examination may be made, when, if there is any thing in the uterus, it will most probably be found lying in the mouth of the womb. The treatment of these cases may be dismissed in few words. So long as the symptoms are not pressing and dangerous, and they generally are not in cases of this kind, so long it is not necessary that the practitioner should manually interfere. The various remedies prescribed on a former occasion, may, if you please, be tried; and, among others, the ergot, or you may throw saline injections, or cold water, into the rectum, or other means may be used to urge the contraction of the womb. But should the bleeding become obstinate, so as to place the life of the patient in danger, you would then be justified in throwing astringent fluids into the uterus; a drachm of alum, for example, being dissolved for this purpose in a quart of water; or if there was any substance in the uterine cavity, you might find it necessary to put your hand into the vagina, your fingers into the uterus, so as to bring away that substance, by the removal of which, in many instances, the hæmorrhage would become promptly arrested. Again, in women of a peculiar constitution you sometimes meet with an after-flooding of a very different kind, described by my valued predecessor, Dr. Haighton, but which I have never hitherto seen myself; whence I presume, that it is not of very common occurrence. In these cases, a sudden pain is felt in the region of the uterus, with concurrent vomiting and flooding; soon it ceases, then recurs, and this, too, repeatedly, till the woman, at length, loses so much blood, that her life is endangered, or perhaps she perishes. These bleedings do not, in general, assail the patient immediately after the birth of the child, but occur, perhaps, an hour or two after the expulsion both of the fœtus and its placenta. It appears, too, that there is a tendency to a repetition of these floodings in subsequent labours; so that if a woman have had an attack of this kind after one delivery, in her future labours she ought to be watched for an hour or two, with more than ordinary care.

A more common, a more important, perhaps, I may say, a more fatal variety of these eruptions, is of a third kind, distinguished by a title familiar to most obstetric ears; I mean that of *internal* bleeding. Now in these hæmorrhages, a clot of blood forms over the neck of the womb, and the hæmorrhagy proceeding, the blood accumulates unobserved in the cavity of the uterus. To this case, on account of its importance, I have already had frequent occasion to advert. A pint or two may, in this manner, accumulate in the cavity of the uterus. Occasionally, too, we meet with a variety of after-flooding, though different in pathology, yet analogous in practice; I mean a concealed hæmorrhagia in the bed. A woman lying in the centre of a large bed, two or three pints of blood accumulate about her, forming a sort of pool there; the patient, perhaps, being so enfeebled, that she does not direct your attention to it, and seems, sometimes, to overlook it herself. In either case, dissolution has been the consequence, I may say repeatedly. The accoucheur is, perhaps, in a room adjoining that of the patient; he is suddenly summoned to her apartment, and, on reaching the bed-side, he finds her dying, or dead; for, on such occasions, women are sometimes very suddenly hurried from us.

When blood accumulates in the bed, this is readily detected by raising the coverings. If the blood collect in the cavity of the uterus, this also may be easily ascertained by examination. Laying the hand upon the uterus externally above the symphysis pubis, instead of finding the womb round, hard, and not bigger than the head of the fœtus, you feel it, perhaps, large as the adult head, yielding under pressure, and, not without gurgling, it discharges large quantities of blood, fluid or coagulated.

Of all the after-floodings, however, by far the most common is the *external* bleeding. Sometimes preceding, sometimes following, sometimes accompanying, the abstraction of the placenta. Large quantities of blood may be discharged. If the woman lie near to the edge of the bed, you hear, or see the blood as it pours upon the floor. This gushing is followed by asphyxia, or a state approaching it; and from that time onward, frequently there is no further gush, but merely a draining—a few ounces of blood coming slowly away. In these cases generally, if the woman have not lost much blood, she rallies in the course of four or hours, sometimes very rapidly. Sitting at the bed side, doubtful whether the patient will recover or not, you find her rising and sinking, to rise and sink again repeatedly, still, upon the whole, gaining ground on her complaint; so that at the end of four or six hours, you have the satisfaction to pronounce her to be, in great measure, secure from danger. But if the constitution be of that kind which ill sustains the loss of blood, or if the discharge be very great, then the woman may die; and she may either die suddenly, say in a few minutes, or, which is more frequent, she may live for one, two, or three hours after the first large eruption of blood, so that you have an opportunity of performing the operation of transfusion.

Those hæmorrhages, let me add, usually supervene within about twenty or thirty minutes after the delivery of the child; so that, as some one has remarked judiciously enough, they occur not infrequently just about the time when the accoucheur is washing his hands, being on the eve of quitting the apartment of the patient, pleased to think that his duties are completed.

Of the Treatment of After-Floodings.

In a view to their management, various as these floodings are, they may be commodiously divided into two kinds; those, I mean, in which the discharge is sparing, and those in which the eruption of blood is at once abundant and dangerous.

If you are called to a case in which, after the birth of the child, a great deal of blood has been discharged from the uterus—should asphyxia threaten, and should the bleeding be arrested—in conformity with principles already frequently enforced, beware of manual interference. I have observed already more than once, and, in consequence of its importance, I reiterate the remark, that whenever women are reduced to the lowest ebb, in consequence of large losses of blood, to disturb the genitals, unless with the utmost caution, is always more or less dangerous; for in consequence of this disturbance the bleeding may be renewed, and asphyxia may ensue, and death. If, however, the system have recovered some share of vigour, and the flooding show a disposition to return; or if, as not infrequently happens, you are called to floodings in which, though the discharge have been copious, still on examining the patient you feel satisfied nevertheless that there is no immediate danger, manual assistance then becomes proper enough; and one of the first measures to be taken is, that of endeavouring to secure the contraction of the uterus. When explaining the nature of floodings, I observed to you, that the principal mean which nature employs to arrest the discharge of blood from the uterus is, the contraction of those muscular fibres which enter so largely into its composition. The womb contracted, its muscular fibres are shortened; they press upon all the blood-vessels which are disposed and buried among them, and under this contraction they close up the vascular orifices which open upon the uterine surface, much in the same manner as if they were tied by so many ligatures. Hence, then, in after-floodings, though not negligent of other practices, we ought to give our main attention to this contraction of the womb, the best security against a further discharge. To excite the uterine contractions, by some we are advised to carry the hand into the cavity of the uterus, moving it about there; an operation which, I believe, requires to be performed but rarely; an operation, also, to which I am exceedingly averse, being always unwilling to carry the hand into the uterus unless there be an inexorable need, for lacerations may now and then occur. There are others, again, who think they can secure the contraction of the womb by binding the abdomen; a practice by no means to be despised. They put a broad bandage round the abdomen, interposing a pillow between the abdomen and the bandage; then, drawing the bandage as tight as may be, so as to occasion a pressure on the abdomen in front; they endeavour, in that manner, to prevent the enlargement of the womb, and, in so doing, they at least prevent an accumulation of blood there. In the very beginning of the labour, this bandage may be applied, and if this precaution have been taken, it will be easy, without disturbance, to draw it tighter after the birth of the fœtus; and this practice is not to be neglected. To mere bandaging, however, you ought not to confide. On tightening the bandage, be not forgetful, too, to interpose the hand, and, grasping the uterus, (to be felt through the abdominal coverings,) compress, shampoo it lightly, and roll the hand over its surface, careful in so doing not to occasion much pain. Distinguishing the womb in this manner through the coverings of the abdomen, grasping it, shampooing it, and rolling the hand over its surface, you may, I conceive, in general, stimulate its contractions as effectually, and much more safely, than if you were to introduce your hand into its cavity.

It may not be amiss to remark here, that in flooding cases, and indeed after all deliveries, there are different states in which the womb may be felt, and which states I formerly described to you. In laying the hand upon the abdominal coverings, endeavouring to feel and grasp the uterus, you will sometimes find it nearly as large as the adult head; a proof that it is uncontracted, and a presumption that blood may be accumulated in its cavity. In other and more frequent cases, on grasping the womb, you find it small, not much larger than the head of a fœtus; but, though contracted, it feels soft and pulpy, yielding readily to pressure. In other cases, again, especially where the hæmorrhage has been arrested, the womb, thoroughly contracted, feels at the same time round and firm, and hard as the fœtal head, and this, too, permanently; under which condition of the uterus, the patient in general is thenceforward secure against any dangerous eruption of blood. There is, too, a fourth, a sort of intermediate condition, in which you may sometimes observe the womb; at one moment it feels contracted and hard, at another very soft and yielding, and perhaps enlarged, the contraction of the womb being not permanent but temporary only, the muscular actions occurring, perhaps, more especially when cold is applied, or when the hand is rolled over the uterine surface. Now, of all these conditions, the two latter only secure the patient against further bleedings, and more especially that condition in which the uterine contraction is permanent. If you find the womb thoroughly contracted, round and hard, then, provided it permanently remain so, flooding will rarely, if ever, ensue; if, moreover, you find it round and hard, yet occasionally softening, in general your patient is secure, though not so certainly as when the uterus is in the other condition. If the womb be contracted, but permanently soft and pulpy, or if you find it uncontracted altogether under these circumstances there is great danger lest the flooding should be renewed, and of course the patient remains insecure. But to proceed.

The management of the placenta is of the first importance in after-floodings, and the following rules relating to this point are not without their use:—In after-floodings, if the placenta *have been removed*, you ought by all means to ascertain whether the whole have been taken away; and, further, whether, in this abstraction of the placenta, the womb have not been inverted. It sometimes happens, in the hurry and tumult of a flooding, that, in drawing down the placenta, the practitioner draws down the womb too, inverting it the more readily because, perhaps, it is relaxed and paralysed by the eruption of the blood. Now should you draw forth the uterus beyond the external parts, so that it lies between the limbs; the inversion can scarcely be overlooked; but if, in consequence of the inversion, the womb have been drawn down into the vagina merely, the inversion may then remain unnoticed; and, in this way, bleedings may be sustained, the cause being unknown: a case of this kind has been recorded by Denman.

In the hurry and tumult of a flooding, when abstracting the placenta, you may bring away a part only, leaving, unawares in the uterus, one-half, one-third, or a still smaller portion; of which accident I have myself seen several instances. Now, retentions of this kind give rise sometimes to floodings, and this too not only when the larger portions are retained, but the smaller also; and I strongly suspect, that much inconvenience may be now and then occasioned by portions of the placenta not larger than the hand of a new-born infant; so that in those floodings which occur after the placenta has been removed, it becomes of no small importance to ascertain, whether or not the whole have been abstracted.

That no portion of the placenta is left behind, you may ascertain, by taking the placenta which has been removed, laying it out upon a napkin, and carefully ascertaining whether its structure be entire. Doing this, if one part of the placenta is absent, you easily discover it; and if the whole be there, you see it at once. When inversion of the uterus is suspected, the best mode of ascertaining this is, by laying the hand above the symphysis pubis, when, if you can feel and grasp the uterus in its natural situation, it follows that no inversion has taken place; but should you not discover the uterus above the pubes, or, on examining the vagina, should you find the womb lying within, and forming a tumour, soft, round, and large as the fœtal head; or should you find the uterus, as before observed, lying forth between the limbs, the inversion becomes evident enough. Polypus, or efflorescent excrescence, must not be confounded with inversion of the uterus; the sudden appearance, however, of these, after delivery, is rare. When inversion is detected, the sooner the womb is reduced the better; but, of this we may treat hereafter.

In after-floodings we are sometimes called to cases, in which the bleeding has occurred after the birth of the fœtus, *the placenta still remaining* in the cavity of the uterus. Now, in these cases, if the woman be lying in a state approaching to asphyxia, the flooding being arrested, it is unwise to interfere manually; but if the case is of the ordinary kind, and though the flooding be copious, the symptoms are not very pressing, the received practice seems, on the whole, to be a good one, and the sooner you remove the placenta, the sooner the womb will contract, and the sooner the hæmorrhage may be expected to cease. With respect to the management of the placenta, therefore, our practice may be comprised in few words. In the general, where there is flooding after delivery, we remove the placenta as soon as may be; leaving it undisturbed, where we apprehend that the woman might faint, and die under renewal of the bleeding. But if the placenta have been abstracted already, before the case comes under our care, then we are anxious to satisfy ourselves that inversion of the womb has not taken place, and that no portion of the placenta has been separated by laceration.

Under large eruptions of blood from the uterus, the woman lying in a state approaching to asphyxia, cold in all her members, refrigerating applications to the central parts are scarcely requisite; though, in conformity with popular feeling, and the prepossessions of friends, napkins moistened with vinegar and water, or water simply, may be administered in a manner formerly recommended. But if, under a continuance of the after-floodings, the surface is warm, the pulse distinct, and the vascular action lively—a condition of the patient by no means common in these cases—then the ordinary refrigerating applications become proper enough, and ought to be used with diligence and effect. For this purpose, procure a large body of very cold water, adding to it a pint or two of vinegar, then, folding a napkin, so as to form a surface large enough to cover the central parts in front, or posteriorly, either besprinkle it plentifully with the fluid, or drench it, afterwards wringing it partially dry. The napkin thus prepared, lay it on the lower part of the abdomen; and, having done this, apply another napkin in the same manner to the loins, changing those napkins as often as the surface acquires warmth, every two or three minutes for example, or oftener, as may be required. In very warm weather, and in warm climates, even ice when accessible has been recommended, but of this I have no experience. Cold water may be injected into the rectum, and I know not that any ill effects would result from this practice, well calculated to excite contraction of the uterus. I have seen some of my obstetric friends dash a cup full of water over the abdomen; while others have taken the hearth brush, always at hand, and dipping it into the refrigerating mixture, they have showered the water upon the abdominal surface, by means of this homely instrument. Bladders of cold water are sometimes placed under the axilla. Ice has been introduced into the vagina, not, however, without the risk of freezing and mortification; and, certainly, by these or other means, a strong impression may be made upon the system, and so far, therefore, they properly recommend themselves to our attention; but, for general use, the most convenient method of refrigeration is by means of the napkin, as before stated; and, if you wish to produce a sudden and brisk impression on the body, after refrigerating the napkins, you may throw them promptly upon the parts in front or posteriorly, in the way here demonstrated. That the application of cold assists in suppressing the hæmorrhagy, seems to be proved by experience; and, without refining in our speculations, the fact alone is sufficient to evince the fitness of the practice under the conditions before laid down. Should you ask me to explain the manner in which the application of cold proves effectual in suppressing the bleeding, I should reply, that it operates most probably, in two modes; first, by lowering the action of the vascular system, as we all know that cold will do; secondly, by producing a sudden impression on the skin, which seems, by sympathy, to occasion a contraction of the uterus; for, I think, I have myself observed, when a wet handkerchief has been suddenly applied to the lower parts of the abdomen, that, immediately afterwards, on placing the hand beneath the handkerchief, the womb, soft before, might be felt round and firm and hard, as if a prompt contraction had been produced by the sudden refrigeration.

In large bleedings, after the birth of the child, you will find your patient generally more or less prone to faintness and asphyxia, and as the management of these symptoms will occasion you no small share of solicitude, you had better study them before you are called upon to act. Now, in these cases, unless immediate death threaten, you need not be in great haste to resuscitate the patient; for you all, I presume, by this time, are aware, that when the vascular action is depressed, the blood has a greater tendency to coagulate, and close up the bleeding orifices; that under this lowered action, there will be a smaller chance of the detachment of the obstructive clots; that a small quantity of blood flowing through the uterus in a given time, even though the orifices of the vessels remain open, only a small discharge may take place; and, on all these accounts, therefore, that syncope, wisely intended by nature to put a stop to the bleeding, ought not to be interrupted. In the very first case of this kind which may fall under your care, alarmed by the collapse, you will feel a disposition to stimulate your patient, but against this error I forewarn you; as long as the faintness is not dangerous, so long let it continue; and, in the general, in these cases, the syncope is rather alarming than dangerous. On the other hand, however, if the collapse produced by the inanition is extreme, and if there is danger lest the syncope, characterised by symptoms formerly enumerated, should terminate in asphyxia and death, it then becomes necessary by stimulus, or other means, to sustain the vascular action. For this purpose, as I have told you already, the domestic stimulus is perhaps the best; and spirit (rum, brandy, or genievre,) may be given in quantities of two or three table-spoonfuls at once, pure, or with an equal quantity of water every ten or twenty minutes, according to the effect it may produce. That the spirit is in action we know, if the patient become garrulous and intoxicated; that it excites the vascular system we know, if the pulse rises; and, in all cases, if you find the spirit in operation, so that the asphyxia gradually yields, the further administration of it may be suspended. It is, according to the effect produced, (remember,) that this stimulus must be given. If you give merely a few table-spoonfuls, in this condition of the system, you will find that it produces but little effect; the stomach is half dead, and moderate doses of stimulus are of little avail. As observed in a former lecture, I have found it necessary to give half a pint of spirit, and even more; and this too, to young girls, in the course of two or three hours, the tendency to asphyxia being very strong. While administering this, you will put your patient in a position fitted, as far as may be, to prevent the asphyxia, with the head depressed, and the limbs raised by means of pillows. The patient, however, must on no account be stirred much, to obtain this position; but if, by chance, she is lying near to the side of the bed, let the head fall down over the edge, and gently raise the lower limbs, so as to keep the blood as much as may be about the brain; for, while the blood circulates there, asphyxia, I conceive, cannot occur. Nor, while treating of the means for preventing asphyxia, must I forget to mention, that nourishment should be given, though there is little hope of its being well digested. Beef tea, bread and milk, preparations of eggs, *et id genus omne*, to the amount of half a pint, may be administered; and of these, eggs and bread and milk, have the advantage of being very readily prepared. If the patient is obviously sinking, I have told you already, that the principal remaining remedy is *transfusion*.

That plugging the vagina is always improper in after-floodings, I am not prepared to assert; in obstinate drainings it may be of service. Be careful, however, that no internal bleeding occur under the use of this remedy; and this will be best prevented by grasping the womb with the hand.

Here, then, are the leading practices to be recommended in those alarming collapses, which are the consequence of after-floodings. If the faintness be slight, you need not actively interfere; but, if the faintness be very deep, and approaching to asphyxia, then stimulate; place the woman in such a position as may keep the blood about the head; administer nourishment, and, no other hope remaining, provided you possess the requisite dexterity, perform the operation of transfusion.

While you are pursuing these practices, of course you will be most anxious to know whether you are gaining ground, and whether or not the hæmorrhage be suspended. In after-floodings, after the first gush, there is not usually a copious discharge of blood, but a small drain from the vascular orifices is apt to continue. Now it is of no small importance to know, whether this flux from the womb be arrested or not; and this may be best ascertained by clearing the genitals, and applying a clean napkin below the part on which the patient lies, and against the orifice of the vagina. If you find, after an application of two or three minutes, that the napkin is not stained at all, or that the stain is small and pale, then, provided you have felt and grasped the uterus, so as to expel any blood that may have accumulated there, you may rest satisfied that the bleeding is wholly, or in great measure, arrested. A converse inference of course you will draw, provided the bloody stain be extensive and deep.

When flooding is arrested, bind up the abdomen very firmly, with as little disturbance as may be. Gaitskell's bandage may be of service; between the abdomen and the bandage, a pillow may sometimes be interposed with advantage. In these cases of large bleeding after delivery, you will be led to consider whether you may or not quit the apartment of the patient after you have put a stop to the discharge; and, on this point, therefore, some comment becomes necessary. Most women do well under after-floodings. These bleedings are generally more alarming than dangerous: remember this, for it tends to tranquillise, and may allay needless perturbations. No woman, however, is thoroughly secure after a large and dangerous flooding, till she have survived the first gush for four or five hours, though the continuance of life after the gush, for two or three hours, must be looked upon as in a high degree encouraging. In small bleedings much precaution is not necessary; but when much blood has been lost, it is requisite that some one should remain with the patient for three or four hours at least after the flooding is arrested.

After large floodings, you ought not to move the patient; let her remain in a perfectly quiet condition for 12 or 24 hours, being secured as much as possible from moisture, or whatever else might tend to her discomfort. I state to you again, as some may now be present who did not hear the observation before, that by yielding to the entreaties of the patients or their friends, and suffering a removal of the body from one side of the bed to the other, the women themselves making no exertion but being lifted like the dead. I myself in two cases occasioned such a disturbance of the vascular system, that I really thought they would have expired. One case I know, in which the woman did die; the practitioner left her an hour or two afterwards, the nurse suffered her to sit up; the bleeding was renewed, jactitation came on, and the woman ultimately perished.

And thus much, then, respecting the management of the more *copious* and *dangerous* after-floodings—in ordinary practice, happily, not of frequent occurrence. But to proceed.

After delivery, it is by no means uncommon to have more *sparing* bleedings; floodings in which not more than half a pint, or a pint of blood, is discharged. Now in bleedings of this kind, the active practices just enumerated and explained, are not required, a much simpler method of management being found to answer very well, and which may be comprised in few words. In these after-floodings of the more sparing kind, you may draw the curtains, sprinkle the floor, diminish the fire, tell the patient to restrain her tongue, often very garrulous after delivery; take away the placenta with usual caution; lay the hand on the uterus, and grasp it; apply a little cold water; have a little patience, and the hæmorrhage is over. Do not let me alarm you needlessly. Do not needlessly have recourse to vehement practices. Remember that, in recommending these, I have been treating of those after-hæmorrhages in which profuse quantities of blood are coming away from the uterus. Most after-hæmorrhages are more alarming than fatal. They are not, however, to be despised. To two women, dead from this cause, I have been called in one night.

There are some *errors* which you are apt to commit in dealing with these floodings, and on these we will next remark. In the hurry of extracting the placenta you may invert the uterus without perceiving it: you may, too, carry your hand into the uterus without need, a practice to which I am decidedly averse. When the blood gushes away externally, you cannot fail to observe the flooding; but where there is a discharge of blood internally, or into the middle of a large bed, you may overlook it. Watch, therefore, and beware. It is of great importance to keep the womb thoroughly contracted, by laying your hand upon the womb and grasping. A capital error, therefore, may be committed, and will, I fear, be committed by some of you, that, I mean, of not securing the contraction of the uterus. Examine yourselves on the very first case which may fall under your care, and see whether you have not neglected the state of the uterus altogether. The leaving the patient too soon is a great error; five or six hours you should remain with her after a dangerous discharge of blood has been stopped. This is not necessary in ordinary cases, where merely a few ounces of blood have come away, but, after the more copious bleedings, it is a very necessary caution.

Some women there are, from idiosyncrasy, peculiarly liable to bleeding, and very undesirable patients they are; the probability being that they will ultimately die under your hands. Hence it becomes a question in cases of after-floodings, whether we can use any means of prevention. Now, as I am in general called to cases in which the flooding is commenced before my arrival, I have had very little opportunity of seeing the effect of any preventive practice, and cannot, therefore, from my own experience, enlarge upon this topic. When there is a tendency to bleeding, Denman and others have recommended that you should not accelerate the birth of the child. After the head has been expelled, you ought not to draw forth the shoulders and abdomen. The womb, by its own efforts expelling the fœtus, it will contract more completely, and less bleeding therefore is to be looked for when the placenta becomes detached. When the child is about to come into the world, or when it is just born, a gentle stimulus may be given, and notwithstanding any little increase of the vascular action which it may occasion, the stimulus seems to be of service, by assisting that uterine contraction on which the prevention of the bleeding is mainly dependent. When there is a proneness to flooding, we are advised by Denman to maintain the patient in the sedentary posture, when the fœtus is about to pass into the world; as it is supposed that in that position there is a less tendency to bleeding than where the patient is lying, at this time, in the usual manner. The leaving the placenta in the upper part of the vagina is another preventive recommended by some practitioners. It is supposed that the lodgment of the placenta in the neck of the uterus, or the upper part of the vagina, will stimulate a more thorough condition of the womb, and by so doing operate as an effectual preventive of flooding. And, indeed, pursuing the rules formerly recommended for managing the birth of the placenta, you will find yourselves in conformity with this practice; for it has been observed already, that, in commencing your obstetric career, in ordinary cases, before you abstract the placenta, you ought to be content to leave it in the genital cavity for fifty or sixty minutes after the expulsion of the fœtus.

And thus much, then, respecting the preventives of after-floodings. Let me, now, in closing the lecture of the morning, direct your attention for a few moments to the two preparations before you.

The first, which I here show you, consists of that part of the uterus to which the placenta was coherent, the texture of the uterus being uncontracted; the vessels, as you perceive, numerous and large, open upon the surface by unclosed orifices, the source of those dreadful bleedings to which, when uncontracted, the womb is so obnoxious.

The preparation which follows is the counterpart of the former; in it you see one-half of the puerperal uterus, but in the contracted condition. Upon the surface, exposed by section, many large vessels appear, but they are become closed from the constriction of the surrounding muscular fibre, secured, as it were, by so many ligatures; hence, in after floodings, the importance of ensuring the contraction of the womb. Study these preparations, and let them not be forgotten at the bed side.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXXI.

On Magnesium, Magnesia, and its Compounds, and on Manganese.

We now arrive at the consideration of *magnesia*, which, although it has been classed among the alkaline earths, exhibits, as we shall by and by see, some properties in which it differs from lime, barytes, or strontia.

Magnesia, like the earths just named, is a compound of oxygen, with a metallic base; and although the metal *magnesium* is obtained with great difficulty in an insulated state, yet little doubt can remain in the mind of the chemist, of its existence. If the pure earth magnesia be subjected to the full influence of a galvanic battery in contact with mercury, its oxygen will be abstracted, and the mercury will immediately absorb the metal which is obtained, and form an amalgam with it, from which the mercury may be afterwards separated by a careful distillation. The metallic nature of the base of magnesia may also be inferred, from the alloy which it is capable of forming with iron. Further, the base of magnesia will combine with chlorine to form a chloride, which, in all respects, resembles the other metallic chlorides; so, although the proofs in its favour are not so direct as those of the metallic bases of the other three alkaline earths, yet little doubt can remain of its being so. In the experiments of Sir Humphrey Davy, the amalgam which he obtained after the distillation of the mercury, was almost free from all traces of that metal, and he had a substance left, which was of a white colour, very heavy, sinking rapidly in water, and producing magnesia as it became changed by the absorption of oxygen. Magnesia, from some experiments made with it and chlorine, and from its saturating power with various acids, seems to be a compound of 12 parts by weight of the metal magnesium, and of 8 of oxygen, so that we have taken 20 as its equivalent number; founded, as I have said, on the proportions in which it combines with the acids to form neutral salts. You see that the number of magnesium is very low, being only 12; there is only one, namely, lithium, below it; and as to magnesia, there are only two other alkalies which rank below it in their saturating powers with the acids, viz. ammonia and lithia.

With regard to the apparent energies of this substance as an alkali, you will find that it is not soluble in water; that it does not change vegetable colours; and yet you see how small a proportion of it is required to saturate an acid, so as to form a neutral salt. Magnesia does not compete in alkaline properties with potassa, soda, ammonia, or lithia, and yet you observe that it has a very high saturating power. Magnesia may be obtained in a tolerably pure state by the calcination of its carbonate, or by precipitation from some of its other salts; it is a light, white, insoluble, insipid substance, and in the state of fine powder; its specific gravity is only 2.30, which arises from its extreme division. When heated, it fuses into an opaque enamel, which is very hard. When water is added to it, it does not slake like lime, barytes, or strontia; and yet, after some time, there does appear to be some tendency in it to absorb a small quantity of water. Dr. Fyfe found, that 5000 parts of water were necessary to dissolve one part of the earth. Although I stated that it does not change vegetable colours like the other alkalies, yet if you dip a piece of turmeric paper into a mixture of the earth and water, you will generally find that it is altered a little; but if you examine the solution carefully, you will find that there is some lime present in the free or caustic state, the carbonate of lime being usually combined with the magnesia, the carbonic acid having been driven off by the heat employed in the calcination, leaving the lime in the caustic state.

Magnesia is found, in various situations, in the native state; here is a specimen from Hoboken, in New Jersey, combined with water, presenting us with a specimen of a native *hydrate*; it is of a greenish tint, and of a soft and mellow feel; it consists of 70 parts by weight of magnesia, and 20 of water. The same substance has been found in one of the Shetland Isles. There is no difficulty in forming a *muriate of magnesia*, by the direct addition of the acid to the earth; and, if you allow the magnesia to remain in excess in the vessel into which you have poured the acid, suffer it to remain a little, and then filter the solution, you will obtain a perfectly saturated solution of muriate of magnesia. It is composed of 20 parts earth, 37 acid, and its number is, therefore, 57. By slightly evaporating this solution, a crop of crystals will be formed, which are deliquescent; and yet, if you carry the evaporation further, and allow the crystals to form whilst hot, so as to drive off as much water as you can, without decomposing the salt; then the hardness of the crystals is very considerable, not deliquescing perfectly, but assuming the appearance of wax, and remaining in that state in a fixed form. If you carry the heat still further, you do not obtain a chloride of magnesium, as you may of calcium; but you drive off the muriatic acid, and leave the magnesia in the vessels. You do not, in this attempt, drive off the hydrogen of the muriatic acid, leaving its chlorine to combine with the oxygen of the magnesia, so as to form a true chloride of magnesia; but you drive off the muriatic acid entirely, and I am, therefore, led to believe that the compound is a true muriate of magnesia. Muriate of magnesia is a colourless salt, and bitter; and when carefully crystallised, forms deliquescent acidular crystals. It occurs frequently native; sea-water contains a large quantity of it, and it is this salt which principally gives to sea-water its bitterish taste. Here is an analysis of the water of the dead sea, which will serve to show you the large quantity of salt in that fluid; 100 parts containing only 76 of pure water, the rest being composed of certain saline compounds, of which muriate of magnesia forms 10 parts.

Muriate of lime	4
Muriate of magnesia	10
Common salt	10
Water	76
	100

The specific gravity of which water is 1.211. Magnesia is, like lime, competent to combine with *chlorine*, to form a compound which has strong bleaching properties, which was at one time recommended for this purpose, but it was not found equal in value to the chloride of lime, and I merely mention it to show you the similarity, in this respect, of the two salts. The *nitrate of magnesia* may be formed synthetically by adding nitric acid to magnesia, and filtering the solution; by evaporation, crystals of the salt may be obtained, which are soluble in one-fourth of their weight of water at 60°. The salt is composed of one proportional of magnesia 20, and of one proportional of nitric acid 54; so that, independent of the water which it always contains, 74 is its equivalent; when heated it is decomposed; various nitrous compounds are formed, and the magnesia is left behind.

The *sulphate of magnesia* is the most important salt of magnesia, and therefore is entitled to more of our attention. It may also be formed synthetically, by adding sulphuric acid to magnesia, and evaporating the solution. The crystals are quadrangular prisms, terminated by diëdral summits in opposite axes. Generally speaking, this salt is crystallised in small needle-like crystals, from its being supposed, in commerce, that such a state is necessary for its purity; but from what was said to you on the subject of crystallisation, you will have learnt that it is not so; and that, on the contrary, small and imperfect crystals are more liable to be adulterated. This, like all the salts of magnesia, is bitter to the taste; it is soluble in its own weight of water at 60°, and in $\frac{3}{4}$ its weight of water at 212°. It is composed of 20 parts magnesia, 40 sulphuric acid, forming 60 of the dry salt; which 60 parts are competent to combine with 63 parts of water, in the crystallised state; so that its representative number, in the crystallised state, is 123. This salt has been obtained in large quantities from some of its native sources, as from the springs of Epsom and Cheltenham, and it forms $\frac{1}{15}$ part of the weight of the solid contents of sea water. The salt is readily procured by adding sulphuric acid to the mother liquor of sea water, after the crystallisation of the other salts, and in this way is obtained in large quantities upon our own coasts.

The *phosphate of magnesia* is an insoluble salt; it is immediately precipitated when phosphate of soda, or any other phosphate, is added to a neutral solution of magnesia. The phosphate of magnesia has a great tendency to combine with acids and alkalies, and to form with them neutral salts, which are not mere admixtures of the two bodies, but true combinations of the two bases with one acid. This is more particularly the case with the phosphate of ammonia than any other; and the ammoniaco-magnesian phosphate, as such compound is termed, or the triple phosphate, is interesting, more especially to you, because it frequently forms concretions in the human bladder, and other parts of the urinary organs; but we must leave the more full consideration of the general properties of this salt to that part of the course devoted more particularly to animal chemistry. I will just show you, however, how this salt may be formed: if to a solution of phosphate of ammonia, in water, you add a solution of muriate of magnesia, you will, at first, obtain no precipitate, unless you apply heat; but if you add only a small portion of phosphate of soda to the mixture, you will cause a precipitation of an insoluble compound, which consists of phosphoric acid, ammonia, and magnesia. Now, although this salt is obtained readily when the solutions are well saturated, yet, when the solutions are very dilute, considerable time is required, and the precipitation takes place in the form of minute crystals; and this substance is often found, beautifully crystallised, in pipes through which urine passes. This property of magnesia to combine, so as to form an insoluble precipitate with the phosphate of soda, causes that substance to be used as a good test of the presence of magnesia. Here are weak solutions of the salt I have already named, which, as you see, do not manifest any disposition to deposit a precipitate; and Dr. Wollaston found, that if he scratched the sides of the glass with another glass rod, that the crystals were first deposited upon these streaks.

All the salts of magnesia are bitter, and may be precipitated from their solutions by the addition of the alkalies, potash and soda.

We now arrive at the consideration of a class of metals very different in their general characters, and the characters of their compounds, from those before enumerated; and the first of this class on our list, which has the strongest affinity for oxygen, is manganese. Any of the metals of which we have now to speak may be readily obtained in a metallic state, by exposing them to strong heat with carbonaceous bodies, which abstract their oxygen.

Manganese.

Here is manganese, which is a somewhat bluish metal, brittle, having a strong attraction for oxygen and of a low specific gravity. Its number is 28. All the metals of this class from manganese to platinum form various compounds with oxygen. Manganese forms three well known combinations with oxygen, and a fourth has been supposed to exist in which the metal has been combined with oxygen, so as to be almost in an acid state. The oxide of manganese has been found in large masses in the earth, sometimes crystallised, but more usually in the form of a black powder, which is the peroxide or black oxide of manganese, in which state it is sent into the market. This table shows you the composition of these different compounds of the metal with oxygen. In the first place there is the *protoxide*, consisting of one proportionals of metal, 28; and of one of oxygen, 8; making 36, as its equivalent; a second oxide composed of a proportional and half of oxygen, 12, with one of metal, 28, making, 40; and a third compound of two proportionals of oxygen, 16, with one of the metal, 28, to form the peroxide, whose equivalent number is 44. When, in the process for obtaining chlorine, you have acted upon the oxide of manganese with muriatic acid, you obtain a residuum which is soluble in water, which is in fact a solution of the protoxide of manganese, and this is the oxide which enters into combination with the different acids, so as to form neutral salts. This oxide, however, soon acquires another dose of oxygen from the water in which it is dissolved, and becomes of a tawny colour, afterwards brown, and then black; so great is its affinity for oxygen. Now the peroxide of manganese is the most important substance of the three compounds with oxygen, on account of its bleaching properties. If any of this oxide of manganese be heated with potash, a compound results, which, upon the addition of cold water, yields a greenish coloured solution, and in fact a solution of the alkali and manganese is thus effected, and a new compound appears to result formed by the union of the manganese and the alkali, which, on exposure to air, absorbs another portion of oxygen, and nothing remains of the original compound. Until lately the nature of this substance was not known, and it was called cameleon, mainly on account of its sudden transition of colour. The *chloride* of manganese is a beautiful flakey substance, having a bluish tint in consequence of its containing a small quantity of the deutoxide, or peroxide; it is composed of one proportional of chlorine, 36, and of one of manganese, 28, so that its equivalent is 64. The sulphate of manganese may be readily obtained by acting on the native oxide of manganese with sulphuric acid. The phosphate and carbonate of manganese are not of much importance.

The oxide of manganese gives a violet tint to glass, and is used by glass-makers for that purpose. Manganese may be distinguished from all other metals, by being precipitated from its solution in the acids, of a white colour, which afterwards becomes black on exposure to air. We now arrive at the consideration of that very important metal, *iron*, with which we shall commence in the next lecture.

FOREIGN DEPARTMENT.

[*] MM. Breschet and Raspail have lately been engaged in investigating the structure of the nerves, with a view to ascertain whether there were canals, according to the opinions of the late M. Bogros, permeating their centre or not? The conclusion at which these anatomists have arrived is, that there are no canals in the centre of the nerves, and consequently that it is not by virtue of any fluid contained in them that the powers of sensation and voluntary motion are performed. In all the cases where an attempt was made to inject mercury into the nerve, this fluid either escaped between the loose cellular membrane and the neurilema, or the neurilema and the nerves; and in no instance continuously through the centre of the nerve.

Report made to the Faculty of Medicine, in the name of a Commission, by M. Dupuytren, on a case where violence was supposed to have been committed on an infant of fourteen or fifteen months old.[*]

The Prefect of the Police demanded, on the 19th of December, 1827, the opinion of the Faculty of Medicine on this point, viz., whether a female infant, between the age of fourteen and fifteen months, could possibly be violated; and the prefect desired particularly to have the opinion of the faculty on the following facts, attested by Dr. G——, "That the hymen of the infant was ruptured, and that the rupture appeared to be of recent occurrence."

We will not stop to inquire how far such a crime is probable, or whether the act could be consummated in an infant not fifteen months old; our object is to decide, whether the organs of generation in the child presented any marks of violence committed on them.

Dr. G—— affirms that the hymen was torn, that its rupture was recent, and that the greater and lesser labia appeared inflamed. The certificate of the physician contains no other fact; the declaration of M. N., surgeon-accoucheur, contains still less; consequently, the faculty must decide, whether a rupture of the hymen, which *appears* recent, and which *appears* accompanied with inflammation of the outer and inner labia, is a proof of violence committed on these parts.

In cold and damp seasons, when catarrhal affections prevail, we are constantly consulted on children who have puriform, and sometimes even a bloody discharge, from the vagina, accompanied with swelling and ecchymosis of the labia, solution of continuity of the hymen, fever, and other symptoms, which it is scarcely necessary to enumerate. We may say, that many of the children brought to us for advice, presented appearances as if violence had been used, but most of them being still at the mothers' breast, and seldom out of their sight, were not exposed to such a cause; moreover, the same affection attacking several at the same time, showed that there must be some general cause giving rise to it.

If we examine separately the value of each of the facts related in the certificate of Dr. G——, it is apparent—1st, that rupture of the hymen may be produced by a great number of different causes; 2dly, that it is impossible, whether the rupture be of recent or an old occurrence, to determine by what cause it has been effected. The inflammation of the greater and lesser labia being a consequence of all inflammations of the external parts of generation, cannot be regarded as a proof of violence. 3dly, Ecchymosis is a frequent result of inflammation of vascular tissues, as it is of inflammation of the labia. 4thly, That it is the same of all the other symptoms of catarrhal inflammation of these parts; the symptoms neither indicate the nature of the complaint nor the cause which has produced them; as, for instance, a greenish or bloody inflammation indicates rather the degree of inflammation than the cause of it; ecchymosis of the external part of generation shows the intensity of this inflammation, as well as an external violence, and the dilatation of the orifice of the vagina may be an effect of the relaxation of the parts, as well as that of an attempt to introduce a foreign body into this canal.

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[*] Repertoire d'Anatomie, tom. iv. p. 4.

[*] The Commission consisted of MM. le Roux, Dubois, Desormeaux, and Dupuytren.

We do not of course mean to assert, that the symptoms related by Dr. G——, and those which he has omitted to relate, may not also arise from external violence; but great care must be exercised in all cases of this nature, as well as others, which are brought under judicial notice, in forming a conclusion as to the cause of the appearances submitted to our opinion, and more particularly when those appearances may be produced by very different causes. With these feelings, we judged it advisable in the case of this infant, on which the faculty consulted us, to state that it was affected with catarrh of the parts of generation, without advancing an opinion as to the cause of that catarrh.

N.B. This report was approved of, and the conclusions adopted by the faculty.

ON PIAN, YAWS, OR FRAMBŒSIA.*

BY M. FERRIER.†

Pian, yaws, or frambœsia is a disease endemical in some parts of Africa, America, and the East Indies, and is known in Canada as the Canadian disease; in Scotland, as sibbens; and in Norway, as radsyge. It is a pustular disease, which attacks all ages, all conditions of life, and as frequently one sex as the other; it is seated in the tissue of the skin, in the vessels and lymphatic glands.

This disease principally attacks the parts near the organs of generation, although it shows itself also on all parts of the body; care must be taken not to confound it with syphilis, dartres, leprosy, or other similar diseases; it differs essentially from these affections in its causes and symptoms, on which account it may easily be distinguished from them.

The predisposing causes are—a lymphatic temperament; extreme sensibility of the skin; exposure to the rays of the sun; habitual use of vegetable food; want of cleanliness; frequent use of spirituous liquors; suppression of respiration, occasioned by the sudden passage from heat to cold; remains of some diseases, such as the itch, dartres, or syphilis.

Exciting Causes.—The causes which contribute to the formation of this disease, are the bad treatment to which the blacks are subjected; the nature of the ships which transport them from Africa to different parts for sale; the moisture of their huts, which are situated near marshy places; the custom which prevails amongst them of lending their clothes to each other; coitus, &c. This disease may also be produced by the bites of flies; but among the determining causes of pian, ought not the impression which is produced on the skin by the effluvia of marshes, and an atmosphere saturated with deleterious exhalations, to be ranked?

If it be admitted that the skin is a sponge, which imbibes humidity from the atmosphere, why should it be insensible to the miasmata which this humidity contains? I do not coincide with those who attribute, in a great degree, the development of the pianic eruption to the custom which is prevalent among the blacks of anointing their skin with fatty substances; this custom, far from being pernicious, may, on the contrary, be useful in certain countries, where the habitations are surrounded by marshes from which, in excessive heat, unhealthy exhalations, or miasmata, proceed.

Symptoms, progress, duration, and prognosis.—This disease is generally preceded by sense of weight, weakness, and pain in the joints; hard and frequent pulse, red tongue, together with great thirst. Sometimes nausea, and even vomitings, take place after meals; the shiverings, which sometimes happen, are generally followed by heat in the skin, and copious perspiration; soon after there appears, on every part of the body, particularly on the margin of the anus, in the groins, under the axillæ, &c., small blotches, or tubercles, which are violet-coloured in whites, and of an ash colour in blacks, and not so large at the commencement as the grains of pearl barley; they vary, however, in size and form, and present the consistance and hardness of warts.

The disease is gradual in its progress, the blotches are raised above the level of the skin; they vary in size from that of the head of a pin, to a large strawberry; their surface presents the appearance of the raspberry (from which the name *frambœsia*

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[*] Repertoire d'Anatomie. Tom. 4, p. 4.

[†] An interesting case of this disease was given in our last Number.

has been given, by many authors, to this affection). It sometimes happens that these pianic tubercles are so thick, that they adhere to each other; the epidermis, which covers them, is distended; it breaks, and there escapes from its surface a white, ichorous and glutinous, liquid, which spreads an infectious odour, occasions great pain on those parts with which it comes in contact, whitens the hair, and causes it to fall off. This liquid is so acrid, that it acts upon metals, and corrodes the linen which is used for dressings.

In the second stage, the tubercles are situated more deeply in the cellular tissue; inflammation attacks the glands and lymphatic vessels, which are situated in this part. The irritation increases, when the patient is not submitted to proper treatment; and the pianic ulcers, instead of secreting a liquid like pus, only furnish an acrid matter, of a dirty yellow colour, spreading a particular odour, almost similar to that which passes from ulcers of a syphilitic kind.

In the last stage, the tubercles degenerate into phagedenic ulcers; these are, at first, elevated, hard, and irregular, and give out a copious suppuration, which considerably reduces the strength of the patient; the inflammation is communicated to the pituitary membrane, which secretes an acrid fluid, and soon ulcerates. The ulcerations of the skin extend to the cellular tissue. The bones become carious, the breath fœtid, puriform expectoration takes place, pain in the abdomen manifesting inflammation of the viscera, a series of symptoms supervenes, announcing speedy death. On examination after death, the parts present a yellowish hard appearance; the epidermis is considerably thickened, and covered with small tubercles of irregular form, containing a glutinous liquid. In the cellular tissues, there are frequently observed depositions of tuberculated matter, having a white, or cheesy, appearance. The glands and lymphatics are enlarged and distended, and in part ulcerated and disorganised. In some cases of this affection, the viscera have been found converted into a scirrhous mass. This disorganisation sometimes also occurs in the cellular tissue, muscles, ligaments, and cartilages; the bones are frequently found carious.

Treatment.—It is best, in general, to place the patient in a dry and elevated spot, at a distance from any marshes, where he may take exercise in the open air, which contribute in a very great degree to the cutaneous secretion, and the development of the eruption. All intercourse with persons attacked with pian, should be carefully avoided; the diet should be changed; animal food should not be given, if the patient be strong; if, on the contrary, weak, it will prove very beneficial.

Therapeutic Treatment.—At the commencement of the disease, the surgeon should have recourse to bleeding, if the strength of the patient permit. The use of sudorific drinks, as the decoction of sarsaparilla, or guiacum, often produces beneficial effects. The juice of these plants, that of vervain, taken at a dose of two ounces every morning fasting, in equal parts of milk, may prove highly advantageous; the use of purgatives, the warm bath, and steam bath, frequently prove beneficial. Sulphureous waters may also be employed. These remedies should be continued until the patient be completely recovered.

If it happens that some tubercles degenerate into spreading ulcers, the same treatment must be adopted, and the ulcers covered with lint, dipped in the chloruret of soda.

Most writers agree as to the treatment, and think that the oxymuriate of mercury is the best remedy which can be employed. I am, however, of opinion, that mercury not only produces little good in warm climates, but that it is injurious, from the effects which it produces in the system, by predisposing the mucous membranes in general to inflammation, and the glands to a state of scirrhus or induration.

I conclude that this remedy ought not to be prescribed in the treatment of pian. As soon as this disease manifests itself, no time must be lost, and the practitioner must not wait, as some advise, for the commencement of the drying of the pustules. Pian may attack the same individual several times; and, indeed, the person who has once been affected with the complaint, is liable to a recurrence of it. Pian is less severe in whites than negroes.

The complaint is contagious; it passes from negroes to whites; it is, however, of less frequent occurrence in the latter, and does not spread so easily as syphilis. I know several whites, who have had frequent connexion with negroes infected with frambœsia, but who never caught it. This opinion does not coincide with that of most authors, but it is founded on numerous facts, which I have myself observed.

Alibert, in his splendid work on diseases of the skin, has described one, which he calls *pian ruboide*. I think, however, that this is not a pianic affection, but a sycosis of the scalp, as has been observed by Dr. Bateman. Dr. Bateman asserts, that the pianic eruption is generally observed on the scalp. I have seen and treated a great number of persons affected with pian, but I never saw it on the scalp.

Dr. Winterbottom says, that the tubercles are filled with an opaque and whitish matter. Before the tubercles break, no matter can be observed in them. When there is a depression of the skin, there is an ichorous discharge. Dr. Winterbottom also says, that it continues in children from six to nine months, and that adults are seldom cured in less than a year, and sometimes not in two or three years. Piau may be cured in three months, when it is attacked at its onset, and proper treatment is employed.

[Two cases of frambœsia are related, which were cured by warm bath, venesection, sudorific drinks, and mild purgatives. No mercury was employed.]

ON A VARIETY OF CLUMP FOOT.

BY M. HOLZ, OF STRASBURG.

Among the malformations of the feet, some are congenital, others occur after birth, generally before the age of puberty, and sometimes without any very evident cause. The most frequent congenital distortion of the foot, is that which the ancients called *varus*, when the foot is turned inwards; the second distortion is that in which the foot is turned outwards; it is called *valgus*, and is extremely rare. But we find no where another variety of clump-foot in which the point of the foot is turned backwards, so that the person walks almost wholly on the dorsum of the foot.

There was for twelve years, in the Civil Hospital of Strasburg, a pensioner, a watchmaker by trade, who presented this variety of congenital distortion in both feet. His legs were thin, and the calves scarcely developed. Both feet were turned backwards, as from forced extension. The dorsal surface had become the inferior, and the plantar surface the superior. Walking was not painful; he could march easily and without support. He did not suffer the inconvenience of those whose feet are turned inwards, and who are obliged to raise one in order to advance the other. The knees were always a little bent, so as to maintain the centre of gravity in equilibrio. He uniformly rested his weight on the tarsus, rather more on the external than the internal surface of the foot; the metatarsal bones and the toes did not touch the ground when he remained stationary. He wore common half boots, the heels of which were turned forwards, and the points backwards; they were laced at the back part.

In 1825, at the age of 64, he was affected with pulmonary catarrh, for which he was placed under the care of Professor Lanth; after a short time the man died, not of the complaint for which he was admitted, but of cancer of the stomach. The feet presented the following peculiarities:—when compared with the feet of persons whose walk is natural, they were small, and the skin covering the part which rested on the ground, was callous, and folds in different directions were observed on the plantar, which, in this case, was the superior surface. In order that the description may be as clear as possible, I will examine first the state of the bones, then that of the ligaments, and, lastly, the muscles.

The bones of the leg were well formed, and in their natural relation to each other. The foot was turned backwards, which occasioned the astragalus to be dislocated forwards, the os calcis forwards and outward, and the cuboid downwards on the calcaneum; but there was no anchylosis nor change in the state of this bone. The dorsal surface was very convex, excepting at the spot which touched the ground, whilst the inferior was very concave, without either of the edges appearing shortened or changed in its figure.

The os calcis, instead of touching the ground and completing posteriorly the plane on which the foot rests, was drawn upwards by its posterior part, into which the tendo-achillis is inserted, and at the same time directed outwards. The superior articulating surface was not in direct and immediate relation with the inferior surface of the astragalus; but it corresponded to its external surface, where, in the natural state, the external ancle is situated, without, however, touching this surface in its whole extent. The superior articular surface of the astragalus was turned directly forwards and a little downwards, instead of being in contact with the articular surface of the tibia; its posterior surface also looked forwards, and the tibia rested on the inferior, in a great degree, and the small process of the calcaneum. The inner surface was free, and gave attachment to ligamentous fibres; it was not in contact with the internal ancle; the outer surface looked towards the superior surface of the os calcis. The tibia rested on the inferior surface of the astragalus, and the inner ancle was situated above the scaphoid; the outer rested between the astragalus and os calcis, on a part of the concave surface placed above the tendo-achillis, and on the inner and back part of the inferior surface of the astragalus. The connexions of the scaphoid with the astragalus were more natural; the scaphoid was, however, turned a little backwards. The cuboid rested by its posterior on the inferior surface of the os calcis. The articular part of the astragalus and os calcis gave attachment to ligamentous fibres. The three cuneiform bones, the metatarsal bones, and the toes, had not experienced any sensible change in their position.

The articulation between the os calcis and astragalus differed, in many respects, from the natural state. The articular surfaces of these two bones were not in contact with each other: a space existed between them, at the posterior and outer part of the foot; this space was filled by a fibrous and ligamentous substance.

The muscles of the foot had undergone some remarkable changes. The tendo-achillis, which was strong and thick, kept the astragalus separated from the ground, at the same time that it drew the foot inwards and backwards. The tibialis anticus, from its direction and attachment, drew the foot upwards and inwards. The tibialis posticus drew the whole foot backwards and upwards, principally its inner edge. The flexors acted in the same way, as well as the muscles which are attached to the plantar aponeurosis. The abductor minimi digiti was not relaxed, as it is said to be in clump-footed persons, and as one might be led to imagine it would in this case, but it was contracted, so as to draw the outer edge of the muscle inwards and upwards. The extensors were weak and elongated, and, consequently, did not counterbalance the action of the flexors.

From what I have said of the state of the parts, both hard and soft, which enter into the composition of the foot, and which contribute to its motion, it will be seen that the principal cause of this irregular arrangement was the dislocation of some of the bones of the tarsus, and that the ligaments and muscles only acquired consecutively their unnatural situation.

Scarpa pretends that the astragalus is not concerned, at least, in common cases, in these deformities; and he feels assured that the other bones of the tarsus are not dislocated, as is generally supposed, but only turned on their maller axis. This case differs altogether from those which I have observed, not only in the degree of turning of the foot upwards, and its direction backwards, but also from the astragalus being evidently concerned, as well as from the dislocation of this bone, of the os calcis, and cuboid. The attachments of the ligaments were little altered from the natural state; their direction only was changed, and consequently their action; which, although weak, tended to increase the deformity, and to retain the bones in their unnatural situation. The muscles had not any unnatural attachments; but the contraction of some, and the weakness of others, from their great extension, impeded the return of the foot to the normal state. Moreover, the tendons having an unnatural direction, the contraction even of the weakened muscles, such as the extensor communis digitorum, and extensor proprius pollicis, tended to increase the mal-position of the foot.

The causes which may determine or favour the development of like deviations of the feet *after birth*, are well known. But those which give rise to these deviations in the womb of the mother, are involved in great obscurity. Scarpa, Boyer, Delpech, thought that they had discovered the first cause of the irregular formation of the bones of the tarsus, or even of a single articular surface, viz. in the want of equilibrium between the muscles which move the foot, in the shortness of some of these muscles, in an unnatural insertion of some of their tendons, &c. This, however, does not completely explain it. In the old man, who was the subject of my observations, no unnatural attachment existed; the bones were well formed, some articular surfaces were bare and rough, which, however, was not concerned in the cause of the deformity. There was certainly a want of equilibrium in the action of the muscles, which is evident, from the description which I have given: but nothing proves that the relaxation of some, and the increased action of others, had been the cause of this considerable turning of the foot upwards.

If we examine the fœtuses of different ages up to the ninth month of pregnancy, we observe a remarkable tendency of the feet to turn inwards. The legs bent and crossed, the feet resting in front and on the buttocks; the soles directed against them; the external edge looking downwards, and the point inwards. This state of parts is more marked, according to the youth of the fœtus; it is very well seen in a young born infant, even until it has begun to walk.

The cause of congenital distortions of the feet consists, then, in a change in the direction of these parts, produced by their mal-position in the womb of the mother, and rarely in an unnatural structure of the parts.

I regret to say, that we have no machine applicable to the cure of this kind of distortion.

GUY'S HOSPITAL.

CASE OF OVARIAN DROPSY, IN WHICH AN ATTEMPT WAS MADE TO EFFECT A RADICAL CURE, BY THE INTRODUCTION OF A TENT AFTER THE OPERATION OF TAPPING.

A. H., 21 years of age, dark hair and eyes, but fair skin, was admitted into Dorcas' Ward, on the 17th of January, on account of a swelling of the abdomen.

It appeared from her statement, that she was a married woman, had borne two children, and, excepting the periods of gestation and lactation, had had regular catamenial discharges. The first child was born within twelve months of her marriage, which took place five years ago; during the early period of her pregnancy a tumour formed at the lower part of the abdomen, on the left side; it gradually increased with the uterine enlargement, and, after delivery, was found to be of very considerable magnitude. It remained almost stationary for about two years, when she again became pregnant, and the swelling again increased during this state. Within the last few months prior to admission, it had become so large as to produce many unpleasant symptoms, clearly referrible to undue pressure.

The general health of the woman, on her admission, did not appear to be much affected; there was evidence of high morbid susceptibility in the constitution, but none of organic disease; she had been much subject to hysteria. The swelling was so large that it had completely filled, and rendered tense, the abdominal cavity, forming indeed a smooth round tumour, similar to ascites; there was an indistinct sense of fluctuation.

On the 5th of February, Mr. Key introduced a trocar into the centre of the swelling, and, by means of a canula, drew off upwards of seventeen pints of dark-coloured fluid, homogeneous, offensive to the smell, and slightly coagulable by heat; having completely emptied the cyst, a portion of bougie was introduced into the wound, and there retained, with the express view of exciting inflammation throughout the interior of the sac. A bandage was passed firmly round the body.

On the 7th, two days after the operation of tapping, there was very high febrile excitement; the pulse was almost innumerably quick; the skin hot, and countenance anxious. Under these circumstances, Mr. Key determined on removing the portion of bougie from the cyst, and it was consequently effected; when, about three pints of fluid issued from the orifice, similar in kind to the first evacuation. For several days the constitutional disturbance was very great, and in consequence of much tenderness and pain manifested on the right side of the abdomen, leeches were applied. It is peculiarly worthy of remark that the tumour, on the third day after the operation, had attained a size equal to that which it had acquired previously.

On the 1st of March, upwards of three weeks after the tapping, we find the abdomen greatly distended, the fluid evidently having re-accumulated in the ovarian cyst to its full extent; the orifice continues to discharge a sanious fluid, and the patient is still feverish and unwell. The treatment, undoubtedly, has been of no avail as regards the local disease, and it has produced a marked ill effect on the general health.

Remarks. From an extension of the principle acted upon in the radical cure of hydrocele; namely, the excitement of such a degree of inflammation, as shall produce an obliteration of the cavity, either by adhesions or granulations, surgeons were led to adopt a similar plan of treatment in cases of ovarian dropsy. This practice, however, which appeared so highly feasible, reasoning from analogy, was abandoned in consequence of its being found, in many instances, to prove fatal, whilst, in others, it was of no avail in the cure of the disease, and, in all, was attended with much danger. If we look back into the history of this measure we shall find that the practice of making incisions into the ovarian cyst was first recommended and adopted by Le Dran, who has related two cases in the Memoirs of the French Academy, in which this treatment was pursued. In the one case a free incision was made into the cyst, the fluid was evacuated, a suppurative process was established, and the woman got entirely rid of the dropsy—a fistulous opening, however, remained. In the second case an incision was also made, and, subsequently, a canula introduced into the sac; high febrile excitement supervened, delirium and constant vomiting being prominent features in the case; the patient at length recovered, and there was no further accumulation of fluid in the cyst; but there remained a fistulous opening for upwards of two years. There is also a case detailed in the same volume with the preceding two, where a female was tapped, but nothing came through the canula; an incision was then made into the cyst, the contents, which proved to be of a gelatinous kind, were evacuated, and the wound was afterwards closed. Vomiting and fever supervened, and the patient died on the thirtieth day after the operation. It is, perhaps, remarkable that the severe practice of making incisions into the ovarian cyst should have been adopted by Le Dran and others in preference to the introduction of a tent, after tapping; because it had at that time been fully shown by various writers, that making incisions, even in cases of hydrocele, was frequently attended with fatal consequences.

The introduction of a tent, after having evacuated the fluid, and the use of stimulating injections, thrown into the cyst, were measures next pursued with a view to a radical cure; under the former mode of treatment we have some cases recorded, which are said to have been successful. Portal relates a case of this kind; but with respect to the injection of ovarian cysts, this practice we believe has been fatal, in a majority of instances. Dr. Denman notices the particulars of a case, in his Introduction to Midwifery, in which the patient died on the sixth day after injecting the ovarium. The late Mr. Ramsden made use of injections in two cases of ovarian dropsy, and both of the patients died in consequence. Sir A. Cooper, in allusion to this plan of treatment, observes in his lectures that it has not been sufficiently tried.

It is, perhaps, not the least curious part of the case immediately under consideration, that the disease of the ovary should have commenced with pregnancy; it would seem that the calling into action of a part, previously useless, had developed a latent disposition to disease. Mr. Key is now of opinion that there is, strictly speaking, a diseased ovarium, not simply an enlargement, with an accumulation of serous fluid; the want of albumen in the fluid, drawn off by tapping, as shown by its non-coagulation by heat, we should conceive augured badly for any attempt at exciting adhesive inflammation throughout the ovarian cyst.

MEDICAL ASSISTANTS.

To the Editor of The Lancet.

Sir,—Allow me to request, through your medium, of one of your correspondents, who signs himself "An Old Practitioner of Chancery Lane," his reasons for withholding his proposed intention of advocating the cause he had entered into; viz. the more liberal pay of medical assistants. On reading his letter, I was much pleased to think, that at last this meritorious class of the profession had the chance of a friend; but was as much surprised, when I went to subscribe my name at Callow and Wilson's, to be informed, that no paper had as yet been left there, although numerous applications had been made respecting it.

Your correspondent has entered so justly and feelingly into the merits of the subject, and has suggested so easy a method of prevention, that I cannot suppose him to be indifferent as to its final success; his views are so correct, and his descriptions rather under than overrated, that the justice of his plan needs no further comment. The insertion alone of that letter, has already awakened a lively interest in its favour; and it is to be hoped, that, on his seeing this, he will immediately proceed in his undertaking, or allow some other gentleman to continue the same, that its merits may not now be lost sight of.

Several of my friends were as much disappointed as myself, in not being able to testify our approbation of the measure; and that no exertion shall be wanting by the writer of this note, he begs to inform your readers, that he can already command the signatures of half a dozen respectable gentlemen, who will lend their assistance, should it be deemed necessary, towards forwarding the plan proposed by "An Old Practitioner."

I have the honour to remain,
Your constant reader,

A Young Medical Practitioner.

Berkeley Street, Portman Square,
March 2d, 1828.

LIZARS' PLATES.

To the Editor of The Lancet.

Sir,—Like many other subscribers to Mr. Lizar's "System of Anatomical Plates," I have been for a considerable time past expecting that he would *complete* that work, by fulfilling certain promises he made, whilst it was in course of publication. Mr. Lizars, in his preface to Part IV., "pledged himself to give the physiology and pathology of the nervous and arterial systems;" yet neither the one nor the other has been published; though he says, at the time he wrote, "they *were already prepared*," and merely required *arrangement and condensation.* Observations on the muscles, and a tabular view of them, were promised, as soon as the parts illustrative of them should be published; this promise, however, he has never fulfilled. In his preface to Part VII. he says, "he deemed it preferable to defer the printing his pathological and surgical observations on the nervous system, till they could be given in connexion with the physiological ones;" but here, again, Mr. Lizars has forgotten his promise, none of these observations having appeared.

Mr. Lizar's work, I believe, has deservedly met with very great patronage, and therefore I think it would be but an act of common courtesy, and, indeed, the least he could do, were he to explain to his subscribers the reasons for these omissions; at any rate, he should let them know whether they are to expect any thing more or not.

Hoping that these remarks may meet the eye of Mr. Lizars, or some of his friends, and draw forth some reply,

I am, Sir,
Your sincere well-wisher,

Justice.

Redruth, Feb. 17, 1828.

THE LANCET.

London, Saturday, March 15, 1828.

Authentic documents, which enable us to contrast the real with the ostensible motives of men's conduct, and to set the secret workings of their consciences in opposition to their public declarations and professions, afford excellent materials for comment on the infirmities and obliquities of human nature. In this point of view, the correspondence between Dr. Forbes and Mr. Guthrie, which we laid before our readers in our last Number, is interesting and instructive. *Ostensibly*, Mr. Guthrie's sole motive in commencing and continuing legal proceedings against The Lancet, was to vindicate his professional character, by showing the falsehood of certain strictures on his conduct and practice as surgeon to the Westminster Eye Infirmary, and as this could only be done by courting the fullest inquiry, *ostensibly*, Mr. Guthrie was the last person in the world, who could have been supposed to be desirous of suppressing any testimony, which was calculated to throw light upon the conduct and practice pursued by him in that institution. It appears, however, from the correspondence, that Mr. Guthrie was aware that there did exist an individual, who, if he had been called upon to give an opinion in a court of justice of his skill as an ophthalmic surgeon, would not only not have spoken favourably of his practice, but who, to use Mr. Guthrie's own language, would have "given evidence in unequivocal support of the matter of the libel." It further appears, that this individual was no other than Mr. Guthrie's own colleague, Dr. Forbes; and that it was only in consequence of Mr. Guthrie's conviction, that there were no means of suppressing Dr. Forbes's testimony, that the action against The Lancet was finally abandoned. We say, without hesitation, Mr. Guthrie's conviction that there were no means of suppressing Dr. Forbes's testimony; because it appears distinctly from Dr. Forbes's extraordinary statement, that Mr. Guthrie had the strongest reason to believe, from a letter addressed to him on the 12th of December, that Dr. Forbes's opinion of his ophthalmic practice was unfavourable; that he *did*, nevertheless, on the 17th of December, sound his colleague as to the nature of the evidence he was likely to give upon the trial; and that it was not until he received a letter from Dr. Forbes on the evening of that day, distinctly apprising him, that if questions were put to him concerning the practice at the Eye Infirmary, he should be compelled to state, that "stimulating applications to the eyes of the patients were too *indiscriminately* used, and that constitutional treatment was, in many cases, not sufficiently attended to," that Mr. Guthrie finally resolved upon making his retreat from the Court of Common Pleas. These are facts which it is impossible to controvert; they are proved by the handwriting of the parties themselves; they are upon record in the pages of this journal; and upon these facts will the verdict of the public and of the profession be awarded, as between The Lancet and Mr. Guthrie; for this is a verdict which Mr. Guthrie still has to encounter, although by a timely retreat from a court of justice, he has escaped the consequences of a proceeding, which, to use his own language, "could only have obtained for him the appellation of a blockhead," and in which his own colleague would have given evidence in unequivocal support of the matter of the alleged libel.

There is one point of view in which the perusal of this correspondence may prove instructive, not merely to professional readers, but to all men who feel an interest in the impartial administration of justice. It is evident, that if the cause had gone on to trial, and a verdict had been obtained against The Lancet, in consequence of the suppression of the testimony of Dr. Forbes, the ends of justice would have been shamefully defeated. Dr. Forbes, in his statement, bears unequivocal testimony to the truth of the paragraph, which Mr. Guthrie characterised as "an infamous and malignant falsehood."

The following is the paragraph which appeared in The Lancet of Saturday the 26th of May:—

"The patients of the Westminster Infirmary, for diseases of the eye, are ordered to attend on Tuesdays, Thursdays, and Saturdays, and, though coming from Kilburn, Paddington, Chelsea, and other places in the environs of town, are frequently obliged to return without the sought advice. Dr. Forbes examines about a third of 150 of these poor creatures, the rest are to be seen by Mr. Guthrie, who does not arrive till half past twelve o'clock, and sometimes not at all, and there does not appear to be any efficient house surgeon to act in his absence. It is sad work."

Let the reader compare the declaration of Mr. Guthrie, respecting this paragraph, with the statement of his colleague Dr. Forbes:—

Mr. Guthrie.	Dr. Forbes.
"I feel it due to those noblemen and gentlemen, who, at my repeated solicitations, have given the Infirmary their support, to declare, that the whole of the defamatory part of the paragraph, copied from The Lancet of this day, Saturday, May 26, *is an infamous and malignant falsehood*."	"The truth of this paragraph was so apparent to Dr. Forbes, that he immediately called upon one of the Vice Presidents of the Institution, and expressed his regret that Mr. Guthrie should have exposed himself and the Infirmary to be so animadverted upon. On the morning following the publication of this paragraph, Mr. Guthrie wrote a note to Dr. Forbes, requesting him to call in Berkeley Street, for the purpose of making some alteration in the admission ticket of the Infirmary."

It must be as clear to every one, as it was to Mr. Guthrie, that with such testimony as that which Dr. Forbes was bound, when called upon in a court of justice, to give against him, he had not the slightest chance of obtaining a verdict against The Lancet. But suppose Mr. Guthrie had succeeded in effecting the suppression of Dr. Forbes's testimony, or in prevailing upon that gentleman so to modify and mitigate it, as to have kept a jury in the dark as to the estimation in which he held the abilities of his colleague, and the extent to which he really concurred in the truth of the statements in The Lancet, which were charged as false and libellous. Under such circumstances, a verdict might, no doubt, have been obtained against us; but we will leave it to any reader of the correspondence to say, whether a verdict so obtained, could have promoted the ends of justice, or substantially vindicated the professional character of Mr. Guthrie. We shall return to this subject next week; for Mr. Guthrie's conduct in altering the regulations of the Institution, on the very day after they were complained of in The Lancet, and the deliberately asserting a statement to be false, which, before he made the alterations he knew are to be true, features in this correspondence, which we cannot adequately introduce to the notice of our readers within the limits which are now at our disposition.

We inserted, a few weeks ago, certain Resolutions, purporting to have been passed by the Pupils of the Veterinary College, the avowed object of which resolutions, was to contradict certain statements which had appeared, from time to time, in The Lancet, respecting the negligence and irregular attendance of Mr. Coleman, as the chief veterinarian of the establishment. We have already stated, that the number of pupils who attended the meeting at which these resolutions were passed, did not exceed twenty-five, the whole number of pupils at the College, amounting nearly to one hundred. We have since ascertained, that there are two other circumstances which give additional value to the document in question, as it affects the reputation of Mr. Coleman. The resolutions were said to have been carried unanimously; nor is this suprising; for it appears that the negative question was never put by the Chairman; and we are informed, that only fifteen out of the twenty-five students present, ultimately signed them. It appears, also, that several of these pupils were to undergo their examination on the following day, and did, in point of fact, obtain, respectively, the thing called a diploma, at Mr. Coleman's residence. The statements, therefore, which appeared in this Journal, remain, to all intents and purposes, uncontradicted. We call upon the friends of Mr. Coleman, if they are really desirous of answering these statements, to say whether a single clinical or stable lecture has been delivered by the Professor, or his deputy, during the present season.

As Joe Burns was bustling through the streets one day this week, he was overtaken by an old colleague, who, after the usual friendly salutation, complimented him on his late success in joke and pun. "Mere trifles, Sir," said Joe, "struck off at the moment; cost me no trouble; not worthy of your attention." It was soon apparent that the friend was quizzing, and that he did not believe Joe to be the real author of the good things that pass under his name. The latter was nettled at this; for, though very good natured, and affecting indifference on the point, he is extremely sensitive whenever his reputation as a wit is called in question. "Well," said the friend, "you may easily settle the point; make a joke directly; if it be good, I will give up my doubts, and the effort shall not be lost." Joe took him at his word, and said with incredible promptitude, "Tell me, Sir, why Ben Travers is like 'the glorious orb of day.'" This apparently incongruous comparison of the source of light to the great master of the dark style, completely puzzled the doubter; the more he reflected on the unfathomable depths of this profound author, the less was he able to discover in him the likeness of any thing luminous, and he soon gave up the attempt. "Why," said Joe, with a look of exultation over the confounded sceptic, "did not Ben rise in the east, and has he not gone down in the west?"

A Manual of the Physiology of Man, or a concise Description of the Phenomena of his Organisation. Translated from the French of P. Hutin. London. Jackson. 1823.

It has been remarked by Pope, that, "the proper study of mankind is man," and this is equally true in a *physical*, as well as in a *moral* point of view. Indeed, what can be so important to man as the study of himself: the contemplation of the beautiful mechanism of his own organisation? Biology, or the science of life, is the business of every man; but to the medical practitioner it is, as Zimmerman has observed, the foundation of all knowledge. An acquaintance with the laws of the animal body, in a diseased state, presupposes a knowledge of the qualities and order of the phenomena of the same body in a state of health; and thus physiology, or the science of healthy functions, stands opposed to pathology, or the science of disease.

The work we have now before us, *sub judice*, professes to be an analytical digest of the science of physiology. It certainly does appear, at the first glance, a daring, if not presumptuous, attempt to condense the "labours of ages" into a small octavco;

we could almost fancy that the volumes around us seem ready to start from the shelves, and that a second "battle of books" was about to commence. However it does happen in respect to physiology, that the quantity of real knowledge, which can only be obtained from an accurate observance of the functions of life, is comparatively small indeed; it is true that we have abundance of speculations and hypotheses, but the solid instruction, as Mr. Lawrence has well observed, forms but an inconsiderable fraction in the accumulated mass.

The author of this Manual first enters into a brief consideration of *all* the bodies of nature, pointing out the distinctive properties of organic and inorganic bodies; and subsequently, the differences existing between animal and vegetable organisation: he then treats of animals in general, concisely enumerating the methods of classification adopted by Linnæus, Cuvier, &c., and affixes a table of the animal kingdom, according to the arrangement of De Blainville. Having dismissed these subjects in a general manner, the immediate object of the work, physiology of man, or anthropology, is entered upon; the different parts which constitute the organisation of man are spoken of, as well as the number and classification of the functions, and at the conclusion a table is given of the order established by the author in subsequently treating of them. The arrangement is as follows: there are two classes, first, those "functions which serve for the life of the individual," and these include two orders, the "functions of nutrition" and the "functions of relation:" and, secondly, "functions which serve for the preservation of the species," including generation, &c.

Under the respective heads of digestion, absorption, respiration, circulation, secretions, &c., we find all the ordinarily received opinions enumerated in a concise, but sufficiently copious, manner; the general disposition and structure of the organ commissioned to perform each function are briefly described, then the function in itself is considered; and, lastly, the principal theories or hypotheses are laid down. In this manner the subjects are treated throughout the two classes; and there is an appendix containing much interesting information, respecting ages, temperaments, idiosyncrasies, habits, &c.

In conclusion, we have no hesitation in pronouncing this to be a very useful little work; and although it cannot of course supersede the more laborious and diffuse treatises on physiology, yet it will be found highly valuable, especially to the student, by presenting much information in a condensed form. The translation is creditably executed, although we must remark that, in many instances, it would have been well to have stepped a little more from the *verbum in verbo* method of executing the task.

ABUSES AT THE WESTMINSTER HOSPITAL.

To the Editor of The Lancet.

Sir,—Knowing you to be an exposer of abuses in any way connected with the medical profession, I beg leave to present to your notice a few remarks relative to the manner in which the pupils are treated, who, unfortunately, have entered at the Westminster Hospital. I allude to the attendance of the surgeons, which is most shamefully irregular. Mr. White, on Saturday last, and many times previously to that day, did not make his appearance until it was time for the students to leave the Hospital to attend their anatomical lectures. In fact, the surgeons are altogether most grossly negligent in discharging the duties incumbent on their situations, both as surgeons to the Hospital, and instructors to the students. I have reason to suppose, that they are at all times ready to *pocket* the *fee* from the pupils, but never afterwards think of rendering them that assistance which it is their duty to do, in their efforts to acquire professional knowledge.

Hoping you will find space for these remarks in your truly valuable Journal, through which so many abuses have already been removed, I subscribe myself, Sir,

Your obedient servant,

Discipulus Æsculapii.

March 3d, 1828.

ATTENDANCE IN CASES OF MIDWIFERY BY UNQUALIFIED PUPILS.

To the Editor of THE LANCET.

SIR,—Your very enemies must admit, that the cause of medical science, and, as a necessary result, that of humanity also, stand much indebted to the spirit of your widely-circulated Journal. Impressed with this fact, which can only be questioned by interested individuals, I send you the following remarks, which I am sure you will insert, if the press of other matter does not preclude its possibility. They allude to a subject which, on the score of humanity, is one of the highest importance; I mean, the practice of students attending poor lying-in women. My professional avocations necessarily call me a good deal among the lower order of persons, and I can assure you that there is, and, I am persuaded, not without just grounds, great cause of complaint. It is not requisite to particularise cases, as it would be rather uncourteous to certain lecturers, my object being rather to draw their attention to the circumstance, and to suggest to them the necessity of giving pupils a rigid examination, previous to their being admitted to practise, to ascertain whether they are competent to the management of natural labour, and whether they can expect from them an early detection of difficulty, when it really occurs. It is true, the College requires, from candidates for examination, midwifery certificates; but you, Sir, need not be told, that this is a "mere farce." In the hope that this brief notice will be sufficient to induce teachers of midwifery to pay a degree of attention to a subject which is of so much importance to the poor individuals concerned, and in which all humane persons must feel interested,

I have the honour to remain, Sir,
Your very obedient servant,
A GENERAL PRACTITIONER.

Feb. 25.

WEISS'S URETHRA DILATOR.

To the Editor of THE LANCET.

SIR,—I take leave to send you an engraving of my newly-invented dilator for the female urethra, accompanied by a letter from Mr. Serph of Welshpool, who was so highly satisfied with it, that he allowed me to make use of his letter, in any way which I should think proper; I therefore beg you will have the goodness to insert it in your valuable publication, with the view of making the instrument more generally known among the profession.

It is highly gratifying to my feelings, to find that it has been so successful; not only in this, but in many more instances. Sir Astley Cooper first gave me the idea of dilating the female urethra, and requested me to invent an instrument for that purpose, which succeeded most completely: since then, it has been used by Mr. Green, and several other eminent surgeons, who have given it their most unqualified approbation.

I am, Sir,
Your obedient servant
JOHN WEISS.

62, Strand, Monday.

To Mr. John Weiss.

SIR,—I did not answer your last letter, because I knew I should have some further communication to make to you about your most invaluable dilator.

On the 7th of May last, I removed from the bladder of the lady, another calculus, or, rather, several pieces of stone, of a soft and friable consistency. On the 28th day of September last, another operation was performed, and a piece of bone (part of the os pubis of the left side) was removed from Mrs. A.'s bladder.

It was incrusted, at one of its extremities, with a thick layer of the same substance as the other calculi were composed of, and the opposite extremity was a naked and sharp-pointed bone, the whole measuring 1½ of an inch in length, and 1¼ of an inch in circumference at its larger extremity, and the substance was shaped like the tusk of a hog.

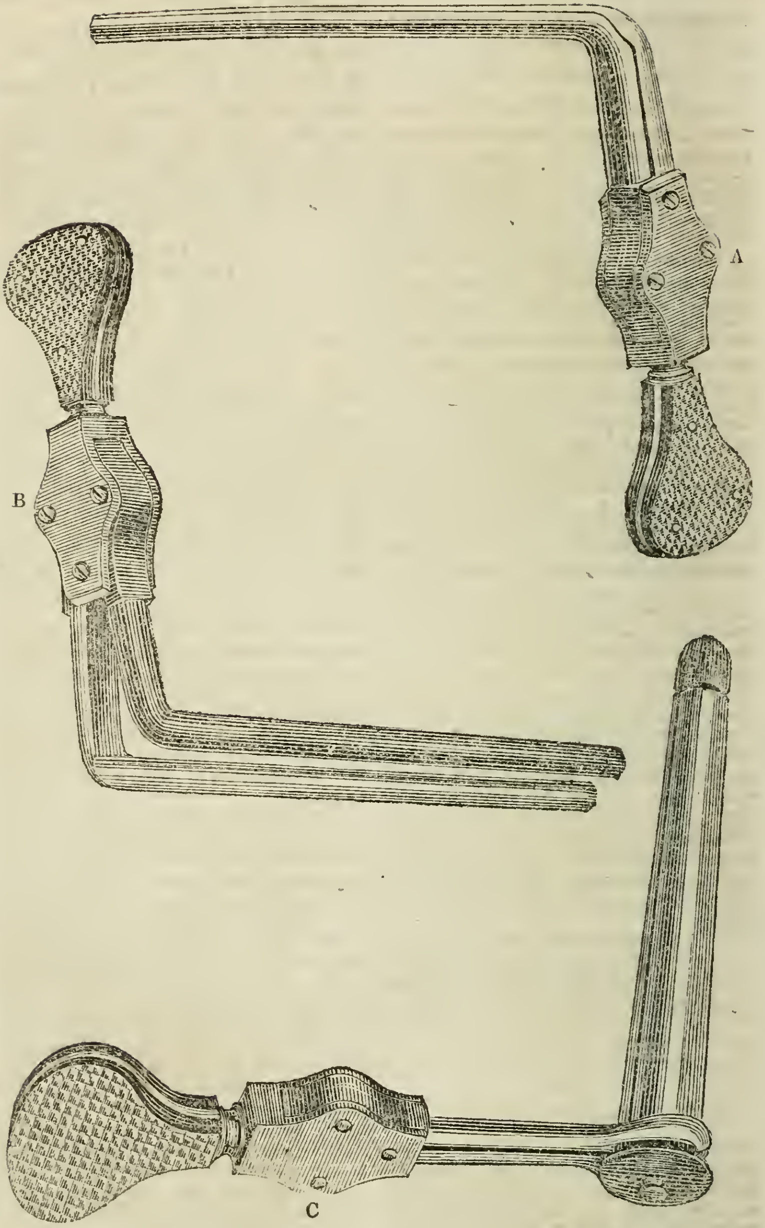
From that time, the patient has enjoyed good health; and a few days after the soreness necessarily occasioned by the dilatation, wore entirely away; the bladder never lost its retentive and expulsive powers.

I feel great pleasure, in being able to testify to the incalculable advantage your dilator of the urethra gives to the surgeon in the removal of calculi out of the bladder of women, and the almost *certainty* that the unhappy females afflicted with stones in the bladder can be easily cured, and without any risk of life, or of the powers of the bladder.

You are at liberty to make what use you please of this communication, and I sincerely hope that your ingenuity will be amply rewarded. The instrument with one branch grooved to receive the other, is far superior to the others, as its introduction is much easier to the operator, and much less painful to the patient.

I am, Sir,
Your obedient servant,
P. L. SERPH.

Welshpool, Dec. 18, 1827.



Directions.—A., the instrument when closed, which, by turning the handle, will cause the blades to open as B.—C., a speculum ani, which is also used for dilating the female urethra ; but the blades of the instrument being large, it cannot be introduced until the part has been previously extended by the smaller instrument.

EXTRAORDINARY CONDUCT OF A LECTURER.

To the Editor of THE LANCET.

SIR,—The character of the profession as a body, is formed of that of its members individually; and when any member is base enough to inflict a wound on this, it behoves the rest to take some notice of his conduct, especially if he be an individual who endeavours to push himself forward into public notice. If this be admitted as a principle, I feel satisfied that both you and your readers will hold that I am justifiable in laying before the profession an account of the following occurrence, which took place on Thursday last at a medical school in the metropolis, although I was, unfortunately, myself one of the principal actors in the drama. The other actor was Dr. David D. Davis, of George Street, Hanover Square, lecturer on midwifery at the Medical School in Aldersgate Street; and the performance took place at the theatre of that school. I know not how far a public lecturer is entitled to the privilege of making an improper use of persons' names before his class, and of heaping calumny and falsehood upon their heads, when he thinks them no longer able to defend themselves; but that Dr. Davis assumes this privilege, will appear evident from the following facts, which are well known to his pupils. Being in town on Thursday last, and meeting a friend who attends Dr. Davis's lectures, I was informed that the Doctor, some weeks previously, when lecturing on *mollities ossium*, made use of my name in these scandalous words: "I should have had a pelvis to show you, as a specimen of this disease, had it not been for a gentleman named Davies, who lived in Tottenham Court Road, and to whom I gave it to clean. Instead of returning it, he said that the rats had eaten it; *but I suppose Mr. Davies was fitting up a little Museum at the time.* He is now gone into the country, I believe, in a decline, and *I suppose the rats have eaten him before this time.*" That the Doctor was perfectly conscious, when expressing these words before the class, that he was stating that which was untrue, I feel fully convinced, from the following circumstances: At the time this said pelvis was destroyed, I explained to him every thing connected with the occurrence, and offered, if he wished it, to bring my partner and assistant to prove, that what I stated was correct; but as he did not seem to require that, and as he appeared satisfied with the explanation I gave him, as I also lived more than *two years* in London after this occurrence took place, without hearing a word about, or thinking any thing more of, this pelvis; I could not suspect that he had registered the affair in his black book, in order to calumniate my character after my death. The facts, in a few words, connected with the case, are these: Dr. Davis, in 1823, requested that I would examine the body of a woman, at Mr. L——'s, the chemist's house, in Tottenham Court Road. She had died in child-bed, and was very correctly supposed, by Dr. Davis, to have mollities ossium. He said that he had never seen her during life. Whether this was the case or not, I cannot tell; there were marks of severe injury inflicted on the uterus. I there met him, with another gentleman, who also knew nothing of the case, and who was a perfect stranger to me. After I examined the abdominal and pelvic viscera before the Doctor and his friend, they both took their departure; the former requesting that I would take out the pelvis, and carry it home to clean for him. I may here remark, that this subject presented the most perfect specimen of *mollities ossium* I have ever seen; the texture of the bones of the pelvis, as well as that of the other bones, was something of a cellular nature, very dissimilar to any organised substance that I have ever witnessed. It was not so *dense* as that of cartilage, but at the same time *softer*. In cutting the bones with the scalpel, they imparted a rough sound, like that produced by a hard apple when cut. I took the pelvis home, and put it to macerate in a pan in a vault at the back of my house; and, in going down, about a fortnight after, with my then partner, Mr. L'Estrange, of Gower Street North, to see how the preparation was going on, we both were as much surprised at *seeing*, as Dr. Davis could be at *hearing*, that the rats had devoured the whole of it, excepting a few pieces of the hardest parts, which were scattered about round the pan. I may also mention, that not a drop of the water in which it was put to macerate, remained in the pan. This is the whole history of the pelvis, respecting which Dr. Davis thought proper to make such an illiberal use of my name in public; and that this is the true account of its fate, Mr. L'Estrange and my then assistant can still testify. As I was neither lecturing, nor intending to lecture, the pelvis could have been of no manner of use to me; and that I was not "fitting up a little museum at the time," the gentleman whom I have already mentioned can bear testimony. But, Sir, supposing the Doctor felt sceptical upon the point of explanation I then gave him, did it show manly conduct, or even common feeling, on his part, to remain silent for two or three years, and then not only to doubt the truth of my explanation, but to accuse me publicly of having secreted this pelvis, when he thought I was beyond the verge of existence. That he actually believed I had paid the debt of nature, or, according to his liberal and gentlemanly expression, that the rats had eaten me, I have no doubt whatever; not only from his own statement to the class, but also from the grim and ghastly horror which his countenance expressed, when I went to call him to account before that class. Why he should have thought so, is best known to himself. It would appear that he is a strong opponent to the maxim, *de mortuis nil nisi bonum*. Instead of wishing peace to the manes of his enemies, as most others have the humanity to do, he seems to feel pleasure in raking up the ashes of those, even, who never gave him the least cause of offence. The thrust of an assassin may sometimes be parried before the poignard reaches the bosom of his intended victim; or he may, perchance, miss his blow, and be made to suffer on the spot that punishment which the enormity of the crime he was about to commit so justly deserves: *he* therefore requires some degree of physical courage to carry him into the deed. But the wretch who aims a blow at the moral character of those by whom he considers himself beyond the reach of possible discovery, is justly set down as the most dastardly of all cowards.

Sir, as soon as I was informed of this infamous charge, I immediately, as the Doctor was lecturing at the time, presented myself before him and his class, that he might obtain ocular proof that the rats had not devoured me; and here his physical courage showed itself as negative as his moral turpitude had been positive. Whether or not he imagined that I was something *less* than flesh and blood, come from the shades below, to haunt him, I cannot tell; but the cadaverous state which his countenance assumed when I addressed him, rendered him almost an object of pity. His subsequent conduct in the theatre, however, will show that he scarcely deserved even this; for, when I repeated to him the words that I had been informed he had used, and asked him whether or not it was true that he had made use of such or similar words, he managed, after a time, to exclaim, "This is a most unexpected visit;" and, having recovered in some degree the use of language, to satisfy himself further that it was not a ghost that stood before him, he asked, successively, the three following questions: 1. Whether I had not left London? 2. Whether it was not illness that caused my leaving it? 3. Whether that illness was not a pulmonary affection? Having partly satisfied himself, by these questions being answered in the affirmative, that I was still composed of flesh and blood, he attempted to *deny* that he had mentioned my *name*; but when he was informed that I was ready to prove that both my name and address were mentioned, he began to slink out of the theatre. As neither his courage nor arrogance could induce him to stay any longer, to have the case explained before that class, every member of which runs the risk of having a similar calumny heaped upon his head before another class, by the same individual, all I could say before he left the room, was, that he had stated an *absolute falsehood*; which he took away with him very patiently, and which he has kept in his pocket ever since. Almost any one but Dr. Davis would have either apologised for the fault which he had committed, or would have attempted to support the charge; but since a love of justice appears to form no part of his nature, there was only one of two ways in which I could make him answerable for the base attack which he aimed at my character. I have chosen to lay the case before the tribunal of the profession, in preference to that of law, because I hope by this means to bring the antidote to meet some of the poison which the malice of this *liberal* professor of the London University, has been endeavouring to disseminate. I have been since informed, from a pupil who has attended four courses of his lectures, that my ashes have been regularly stirred in every course. Now that he has had ocular proof that my bones, although once pulverised by the masticatory powers of rats, have again become invested with muscles and skin, I beg to inform him, that he shall probably hear of me, from time to time, until these voracious vermin take it into their heads to make a second attack upon me, lest he should bring himself into another such dilemma. In the mean time, as all his pupils, former, present, as well as those who are to come, (if he should have any more,) may be endowed with this reviving property with which I have been favoured, I would advise them not to forget to insert a clause in their wills, requesting some faithful friend to watch over that which was most dear to them while living, namely, the reputation of their moral character, lest it should be dastardly attacked when they are no longer present to defend it themselves.

I am, Sir,

Your most obedient humble servant,

John Davies.

Hertford, March 7th, 1828.

LONDON MEDICAL SOCIETY.

ANNIVERSARY MEETING AND DINNER.

The anniversary meeting of the members of this society was held on Saturday afternoon last, at the London Coffee House. After the registrar had announced the names of the officers for the present year, the President, Dr. Haslam, addressed the meeting by observing, that in addition to the numerous advantages possessed by the London Medical Society, among which might be enumerated its extensive library of ancient and modern authors; its association of eminent medical practitioners, and its interesting disputations: the society with distinguished liberality, on important occasions, conferred an honorary premium on such of its members, as had rendered themselves conspicuous for talent, its exercise for the honour of the society, and for the advancement of the healing art. To Dr. Clutterbuck, a medal was now to be presented.

In Dr. C.'s absence, his nephew, Dr. Woodforde, was appointed to receive it; and it was accordingly delivered to that gentleman with the following address:—

This token of the esteem and regard of the Medical Society of London, the highest remuneration they have the power to bestow, conveys the unanimous feeling of respect and affection of that body towards Dr. Clutterbuck for numerous essays and dissertations on professional subjects. This memorial, continued the President, has been long deserved; but from circumstances, not to be controlled, has been long delayed: this procrastination has, however, enabled me to feel a personal pleasure in being the instrument of conveying the reward to merit.

The gold medal was then presented to a Mr. Perry, for a dissertation on diseases of the rectum; and we remarked in the President's address the following sentence, delivered with considerable emphasis:—" It is but justice, that this essay should be published, that the profession at large may duly estimate its intrinsic merit, and likewise appreciate the *wisdom* and *impartiality* of the committee, who awarded the premium."

The Society's medal was likewise presented to Dr. Haslam, for his valuable lectures on the Intellectual Composition of Man. The presentation of the medal was accompanied by a very elegant and apposite speech from Mr. Kingdon, one of the vice-presidents.

Dr. Burne then proceeded to the delivery of an oration, " on the principles of the practice of medicine;" and this being concluded, the Society adjourned to a neighbouring apartment, until the welcome invitation to the festive board was given. Dr. Haslam took the chair, and upwards of ninety gentlemen sat down to dinner; there was abundance of good cheer, and the hilarity of the evening was much increased by the efforts of several eminent vocal performers. The ordinary loyal toasts were given, and drank with much enthusiasm. In proposing the health of his Royal Highness the Duke of Sussex, the worthy chairman was pleased to designate him, " the patron of the arts, and the most learned prince in Europe." Mr. Pettigrew returned thanks on behalf of his Royal Highness.

The " Members of the College of Physicians" was the next toast given, when Dr. Burne rose and observed, that he wished to exculpate himself, as one of the stewards, from the supposition of having sanctioned such a toast; he knew of no such persons as the Members of the College of Physicians; there were, he said, Fellows and Licentiates.

The Chairman, in explanation, remarked, that by the term " Members," was included *all* who belonged to the College of Physicians; he heartily deprecated invidious distinctions in matters of science, and was persuaded, that if " chartered rights " were thrown into one scale, and talent into the opposite, the former would soon kick the beam. He had not toasted the " College of Physicians" simply; for that would have implied nothing more than a brick and mortar building, the unstable nature of which, we had lately had a melancholy opportunity of knowing.

The healths of the Members of the College of Surgeons, and of the Apothecaries' Company, were drank without commment. In proposing the " enlightened and regular practitioners of obstetric science," the worthy Chairman made some very humorous and pointed allusions to the base vituperations which lately have been uttered against the male practitioners of midwifery.

The " Medico-Chirurgical Society" was next given, and this called up Mr. Travers as President of that body. In the course of his speech, Mr. Travers remarked on " the *tumultuous state of the press*," which, he said, " *assumed liberties never before known in our profession.*" Further, he observed, that " *extraordinary* and *unexpected* verdicts" were now obtained in courts of law, given by juries who " have no precise or accurate information on professional details." All these things, he considered, called for unanimity amongst professional men—demanded, that they should be true to each other.

In the course of the evening, the Chairman gave the "medical press" as a toast, and passed a high and splendid eulogium on this mighty moral engine; he spoke of the utility resulting from the publication of reports of the Society's proceedings; arguing, that by such means, a due portion of celebrity is given to those deserving it—that it fosters, on the one hand, unassuming talent, whilst, on the other hand, it represses the mere pretender to knowledge, knowing of no aristocracy, but the aristocracy of talent.

The healths of the various officers were given, and the company did not break up until a very late hour.

March 10, 1828.

DISCUSSION ON FRACTURES OF THE THIGH.

The Minutes having been read, a vote of thanks was given to Dr. Burne, for the oration delivered at the anniversary meeting; this gentleman subsequently returned thanks, and Dr. Clutterbuck also acknowledged the gift of the Society's medal. The President then informed Mr. Amesbury, that he was entitled to reply to some observations which fell from Mr. Callaway, at the last ordinary meeting of the Society.

Mr. Amesbury remarked, that Mr. Callaway had borne testimony to the ingenious construction of the apparatus employed by him, and had confessed to his having witnessed its beneficial effects in many instances, where common means had failed; yet, singularly enough, Mr. Callaway had stated, that there was no necessity for employing it generally. Mr. Amesbury considered this mode of reasoning to be fallacious, and contended, that if the principle were admitted, then modern physicians are highly culpable for following the present plans of treatment in many diseases; as, for instance, in cases of ague, bark and quinine should not be employed generally, according to Mr. Callaway's reasoning, although singularly efficacious, but should only be used in rare cases, and after other plans of treatment had failed. Mr. Amesbury also adduced, by way of illustration, the present mode of healing stumps by adhesion, in contrast with the ancient practice of healing by granulation. He said, that whilst he regarded the human body as a machine, governed by the peculiar laws of vitality, still he considered it as subject to the laws of mechanics; and although, in the treatment of fractures, the surgeon must consider the body in this double point of view, yet, to the latter, namely, the mechanical, he wished especially to draw the attention of the Society. The mechanical management of fractures of the middle and lower third of the thigh, he thought totally inadequate to fulfil the proper indications; and he wished the Society first to argue upon the principles necessary to be held in view in treating these accidents, and next to consider whether the means ordinarily employed, did really effect the professed objects. If the members of the Society agreed with him, that the principles which he had enumerated on a former evening were correct, he, Mr. Amesbury, thought it was incumbent on them to show, that the modes of treatment usually followed, were adequate to obtain success.

Mr. Lloyd thought the analogy, in respect to treating ague, did not hold good. Physicians had reccourse to the new methods, because the results of the old plan were bad; and this was the case, also, with the healing of stumps; but thus much had not been proved as regards Mr. Amesbury's apparatus, and the means commonly employed. He admitted, however, that he was not present at the description of Mr. Amesbury's apparatus, *nor did he understand its construction*!

After some further remarks from Mr. Amesbury, in the course of which he observed, that even the simplest fracture of the thigh is not *safely* treated with any of the common means, Mr. Lambert called the attention of the Society to the principles which Mr. Amesbury had laid down as applicable to the treatment of fractures of the thigh, and he begged that they might again be read. The registrar then briefly enumerated them from the minutes: they were, 1st, To prevent motion of the fractured ends when an impetus is given to the limb, either above or below the fracture; 2dly, To keep up extension in a line with the bone, the limb being at the same time fixed in a bent position; 3d, To prevent eversion or inversion of the foot; 4th, To maintain the limb of its proper form, as well as of its proper length.

Mr. Lloyd admitted such were the indications necessary to be fulfilled, and that they were effected by the ordinary method. He had followed the plan recommended by Pott with great success; but in order to prevent the patient from turning round upon his back, he usually tied the opposite hand and leg to the bed. In answer to a question, whether the first indication mentioned by Mr. Amesbury was accomplished, Mr. Lloyd said, that *he* did not believe there was *any* mechanical contrivance by which the ends of the bone could be held together, if the lower part of the limb is moved round, or the body turned.

Mr. Amesbury commented upon the tiresome plan of keeping the patient tied down in one position. With this apparatus, he usually placed the person on his back;

but relief could be afforded by turning the limb upon the side; the trunk being of course moved at the same time.

The PRESIDENT fully concurred with Mr. Amesbury, in respect to the consequences resulting from Mr. Pott's plan of treatment. He (Dr. Haslam) was dresser under Mr. Pott, for nearly two years, and by his desire had the particular management of many fractures: he gave much attention to their management, yet he did not recollect a single case in which eversion of the foot did not occur. He knew his patients, after they had left the Hospital, as well by their gait as by looking in their faces; but he was happy to find that such improvement had taken place at St. Bartholomew's Hospital, that these accidents were now treated without any deformity occurring.

Mr. SHEARLEY thought that the old plan of treatment was on the point of being "scouted:" he had seen Mr. Pott's plan of treatment extensively tried, and had observed that eversion of the foot was almost a constant result.

There was some further desultory conversation, in which Mr. Lloyd pertinaciously maintained that *he* had *invariably* treated fractures of the thigh, without deformity, by placing the limb on the outer side, in a flexed state, and applying short splints; whilst it was admitted by other members that, in their hands, the same means were not attended with the like *extraordinary* and *never-failing* success. The society then adjourned.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 8, 1828.

Mr. ARNOTT in the Chair.

DR. COPLAND introduced the treatment of fever, by dividing the disease, 1st, The stage of the application of the cause; 2d, The stage of invasion; 3d, The stage of open violence. For the first stage, (which, by the way, is no stage at all,) he could not well suggest any treatment; for the *second*, or *first* appearance of symptoms, he considered emetics as generally efficacious; for the nervous symptoms of the third stage, baths, blisters, embrocations; for collapse and stupor, wine, æther, ammonia, and stimulants generally.

Dr. LEY, with that eloquence for which he is so remarkable, combated all these positions *seriatim*. According to this gentleman, fever cannot be prevented nor cut short by emetics, or any other remedies, after it has appeared; and as to stimulants in the last stage of collapse, they are equivalent to *extreme unction*.

Dr. BARRY remarked, that we had examples of the two extremes of treatment in Drs. Ley and Copland. The one might be styled polypharmac, the other apharmac. If the physicians were only to sit down and look on, the nurse would keep watch just as well.

Dr. LEY rose indignantly to assert, that he would treat symptoms as they arose.

Dr. BARRY replied, that as every disease was composed of symptoms, Dr. Ley, after all, would act like other people.

Dr. JAMES JOHNSTONE remarked, that the treating of symptoms would not always answer; and that it is at best a mode of proceeding liable to most important objections, as in the diseases originating from malaria.

Dr. LEY explained again, that he had not contemplated these affections, and called upon Dr. Copland to state, upon what *principle* he administered turpentine in puerperal fever?

Dr. COPLAND considered this a matter of *too much importance to be lightly entered on.* It came out, however, in the course of a tedious dialogue, transmitted through the President by these two gentlemen, that the oil of turpentine, in half-ounce doses, is a most excellent medicine in tympanitic distension of the bowels. To this Dr. Ley limited its utility.

A Gentleman, whose name we could not learn, stated, in support of Dr. Ley's experience, that he had administered turpentine to a patient, labouring under a most enormous tympanitic distention of belly, which was reduced by this medicine to its natural volume; but that immediately after this desirable event was brought about, his man died.

It was announced from the Chair, that Mr. Hawkins had undertaken to bring forward, at the next meeting of the Society, the diagnosis of hernia.

ROYAL INFIRMARY, EDINBURGH.

MOLLUSCUM PENDULUM.

E. HAY, a woman of forty, was the subject of this rare affection, which, though properly giving its name to the whole, formed the least important feature of the case. On different parts of the body, but particularly on the face and head, there were several small tumours of a doughy consistence, the natural colour of the skin, and varying in size from a mere elevation of the cuticle to the bulk and shape of the tip of a finger. The vertex of the head was occupied by a large tumour of the same character, but of the size of a large orange; unequal surface; ulceration at its apex, base, and various points of its circumference; and discharging a fœtid, sanio-purulent matter, extremely offensive. The disease commenced in infancy, but gave her little uneasiness until lately, when the tumour described increased rapidly, rendering her loathsome to herself and others. On the 14th of January she was brought into the theatre, and Dr. Hunter extirpated the large tumour, down to the pericranium, the disease having become adherent to the tendon of the occipito-frontal muscle. On being removed, it was found to consist partly of a sponge-like substance, filled with a mixture of sanies, pus, and atheromatous matter; and on one side, towards its base, of a fibro-cartilaginous structure. Some of the "authorities" saw in these appearances the structure of genuine carcinoma; but they scarcely differed in any respect from those which characterise the contents of atheromatous tumours in general. The wound, however, healed without any untoward symptoms supervening on the operation, and the woman was discharged in good health on the 29th January, since which time she has attended as an out-patient, and the ulcer is now reduced to the size of a shilling, and is of a healthy character.

TRAUMATIC DELIRIUM TREMENS.

Of several cases of this disease presented during this session, two of which lately proved fatal, I shall select the particulars of one of them, as being the shortest and most characteristic of this affection.

John Smilie, aged 44, an ostler, addicted to the use of spirits, was admitted under the care of Dr. Ballingall, on the 18th of January. Around the ancle-joint, and outside of the leg, there was a considerable tumefaction, a slight abrasion of the cuticle, some vesications, and a depression of the fibula, with crepitus one-third of its length above its articulation with the tibia. The case was mistaken for, and treated as, a sprain or contusion, by Dr. Ballingall, until the fracture was detected by the attentive and intelligent house surgeon, Dr. Lubbock. The mistake may, probably, be owing to the manner in which the accident was stated to have occurred, the man having merely fallen on the edge of a pavement, with the leg turning under him.

On admission, the pulse was natural; the tongue but slightly furred, and the bowels constipated. Forty leeches were applied to the leg; castor oil given, which relieved the inflammation; and, on the 23d, a small ulcer only remained at the point where the cuticle had been removed. During this interval the pulse ranged between 80 and 90; the tongue became somewhat more furred; the disposition to costiveness remained; and, on the night of the 24, he became violently delirious, talked incessantly of his private affairs; imagined there were several persons in the room with him; and was affected with agitation of the hands peculiar to this disease. On the accession of the delirium, the pulse was nearly natural, and the skin cool; two grains of opium were ordered to be taken every second hour. Towards morning he slept for half an hour; the countenance on the 24th, was pallid; the pulse, 116; the tongue more furred; and bowels had been opened twice. On the 25th, he was reported to have slept at short intervals in the night; the pulse was 104; the tongue dry, with much thirst and perspiration; the bowels unopened. He continued to take the prescribed quantity of opium; and castor oil was ordered to be taken immediately. The day following, the 26th, he is stated to have slept none during the night, but to be less restless; and, at the visit, he answered questions rationally. He took the same quantity of opium until this morning, when he had six grains for one dose. The pulse was 104; the tongue dry, dark, and furred; the gums covered with sordes; and bowels had been opened once. The opium and a purging enema were ordered. Towards evening, he became comatose; was affected with difficulty of breathing, attended with the mucous rattle; the muscles of the face and upper extremities were convulsed; and though the pulse at this time was but 100, and of good strength, he died at half-past two on the following morning, after sinapisms had been applied to the feet and a blister to the head, under use of which he rallied but for a short time.

The disease is extremely common in Edinburgh, where, notwithstanding our "intense morality," the watch-houses are regularly supplied with stomach pumps for relieving the mechanic of his Saturday-night's debauch; and to which medical students not unfrequently resort to see "Jukes," or "Reid," in full operation.

FUNGOID HÆMATODES OF THE EYE.

R. Amos, aged 50, was admitted into the hospital under the care of Dr. Ballingall, on the 29th of January, for a large tumour projecting from, and entirely filling up the right orbit. It was partly soft, elastic, moveable to a certain extent, and of the size and shape of a small lemon. It was covered, for the greater part of the surface, by the distended palpebræ, which had assumed a dusky livid colour; and towards its apex, by the conjunctiva, which had degenerated into a fleshy, granulated, varicose membrane. In the centre of this mass, and apparently occupying the site of the cornea, in the healthy state of the organ, there was a blackish, sloughy, bleeding fungus, through which a probe might be passed back for more than two inches into the orbit. On the face and forehead there were a few small tumours, but the man's general health was unimpaired.

Ten years ago, the affected eye was injured by a thorn striking against it; and, in two years from the receipt of this injury, the sight was completely destroyed. Six years subsequently to the latter period, the eye began to assume its present appearance; but within the last eighteen months, the disease has increased rapidly, accompanied by lancinating pains, and slight occasional hæmorrhages from the fungous portion. Of the particular part of the eye in which the affection commenced, or its appearances during its progress, he was unable to give any satisfactory account.

On Monday, the 4th of February, the whole of the tumour was removed from the socket by Dr. Ballingall; a smart hæmorrhage followed its removal, but ceased spontaneously; it was found strongly adherent to the inner edge of the external canthus, where it had produced a slight caries of the bone, which was carefully scraped out with a scalpel. The tumour was found to consist of a dark brown pigmentous mass, of various degrees of consistence, but in which no traces of the original structure of the organ could be discovered. The operation was followed by scarcely any constitutional disturbance; and the patient went on well, the wound suppurating kindly to the 15th, when, as he stated, after having drank too freely of cold water, he had shivering in the night, which was followed by the endemic of the Royal Infirmary, erysipelas of the face, which yielded, however, in a few days, to the usual remedies. Since that time, he continues in good health; the internal surface of the orbit is covered by smooth, pale, granulations, resembling those of a fistulous ulcer, and he entertains the most sanguine hopes of a complete recovery, of which, at present, there is certainly every prospect. The almost invariable recurrence of the disease, however, after extirpation, must limit, even in the present case, anticipation of entire success; but should it prove another exception to the general rule, its record may be useful, as showing that the disease, in its worst form, may be sometimes removed by operation; for, besides the evidence of its real nature, afforded by its external character and history, Mr. Wishart, who was present at the operation, and than whom there are few better qualified to decide in complaints of this description, consented, we believe, to its baptism, as an instance of genuine fungus hæmatodes.

MELANOSIS OF THE LOWER EYELID.

Colin Wilson, aged 17, the subject of the following case, was admitted on the 28th of January, under the care of Dr. Hunter. On a superficial view of the left eye, the only morbid appearances observable, were a preternatural protrusion of the eyeball from the orbit, preventing the approximation of the lids, and a slight eversion of the lower palpebra from tension, with a slight turbid yellow tint on the skin of the same part. Examined with the fingers, an immoveable tumour, of a soft pulpy consistence, might distinctly felt between the globe and the floor of the orbit. The sight of the affected eye was considerably impaired, but he could still read large print; and, with the exception of the uneasy sensation of tension produced by the tumour, he complained of no pain. His health, which he states was always good, was, on his admission, quite unaffected.

He stated, that about eight months ago he received a blow on the eye, which gave him, at the time, extreme pain; and that three weeks after, he felt the present tumour commencing in the orbit, which has since gradually increased in size. Blisters and leeches had been applied to the part, and a lancet puncture made in the lower eyelid, which was followed each time by about half an ounce of blood, but without any advantage.

On the 31st of January, Dr. Hunter attempted to remove the tumour, by cutting down on it through the conjunctival side of the lower palpebra; but though contained in a cyst, its deep attachments in the orbit, prevented its being dissected out entire; and its contents were, consequently, groped out in separate masses resembling clots of blood nearly as black as ink, and evidently of a melanotic character.

The operation was succeeded by fever, inflammation of the palpebræ and conjunctiva, which were partially removed on the 5th February by the usual means. On the 7th, the inflammation of the conjunctiva was much increased, and ulceration of the cornea had commenced, for which a collyrium of the sulphate of copper, antimonial wine, and subsequently a solution of the nitrate of silver, were successively ordered. By the 10th, the ulceration had penetrated the cornea; a minute portion of the iris protruded; the anterior chamber was almost obliterated; and an extensive ecchymosis of the conjunctiva had taken place. The former collyria were again applied, and with some slight amendment, until the 14th, when the inflammation, internal and external, had again returned with increased severity; and a second prolapsus of the iris, with a contraction of the pupil, had taken place. The collyria were omitted; anodyne fomentations ordered; three grains of calomel to be taken in the course of the day; a solution of sulphate of magnesia, with tartrate of antimony, in the morning; and blisters to be applied behind the ear. On the 15th he was attacked with erysipelas of the face, for which he was bled to deliquium, had the purging mixture repeated, and the anodyne fomentations applied over the face and eye. Under the use of purgatives, nauseating doses of tartrate of antimony, and the lancet, the erysipelas had been almost entirely removed on the 21st; but, during this time, the ulceration of the cornea had been extending, the pupil contracting, and the iris forming an adhesion at its lower edge to the cornea. Since then the ulcers have been repeatedly touched with the lunar caustic, belladonna applied internally and externally, to the eye, and collyria of the sulphate of copper and nitrate of silver alternately applied, as the case seemed to require, At the date of writing, the pupil continues much contracted; the ulceration appears arrested in its progress; the inflammation of the conjunctiva is subdued; his health is much improved, but the vision of the eye is all but lost, and whether the disease for which he was subjected to an operation shall return, rests with time to develop. SCOTUS.

LONDON AND SOUTHWARK MIDWIFERY INSTITUTION.

THE friends of this institution dined together on Wednesday last at the Crown Tavern, Clerkenwell, Alderman Thompson, M. P. in the chair. This charity, which is now for the first time brought before the notice of the public, we believe owes its origin to Mr. Waller, and has hitherto been supported chiefly by his active exertions, aided by the benevolence of a few individuals. The professed object of the institution is, that of affording medical assistance to poor women at their own houses, during their confinement in child-bed; and so numerous have the applications become, that it was found impossible to meet them, without an appeal to the public. The consulting surgeon-accoucheurs, are Messrs. Waller and Doubleday; and the physicians, Drs. Overend and Roberts. There appears to be a very warm interest excited in favour of this Institution, especially amongst the inhabitants of Clerkenwell; and, if it should only succeed in rescuing the poor parturient female from the hands of ignorant old women, a most important and benevolent object will be obtained.

ST. THOMAS'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—The subject of aneurism, has been so frequently discussed of late, that I fear it will be deemed tiresome, now, either to speak or write concerning it. However, as the following case affords me an opportunity of entering fully into the consideration of the merits of an operation which, I venture to say, is not duly appreciated, I am induced to think the subject-matter, which I am about to submit, not wholly uninteresting.

I am, Sir,
Your obedient servant,
JAMES LAMBERT.
Walworth, March 10.

ANEURISM OF THE ARTERIA INNOMINATA.

Observations on the propriety of applying a Ligature to the Right Carotid and Subclavian Arteries, in such Cases.

CASE.—W. A., a sailor, of dark complexion, muscular, and about forty years of age, was admitted, on the 21st of February, into Henry's Ward, under the care of Mr. Travers.

On the 23d, two days after admission, the following notes were taken: the man's general appearance is healthy; and, according to his own account, he has never suffered from serious indisposition: he has been a resident in warm climates, and his occupation, until lately, of a laborious description. About five months ago, whilst at sea, he experienced pain in the right arm and shoulder, and he was not able to pursue his ordinary employment, with his accustomed vigour; when, on his return home, he fell from a considerable height, alighting upon his feet; he was, in consequence, much shaken, but was not conscious of anything further, than the mere temporary shock. He remained in the same condition, feeling pain occasionally, until about two months prior to admission, when he began to be affected with severe pains about the clavicle and shoulder, and also extending down the arm: he attributed them to rheumatism, and was rubbing the parts when he accidentally discovered a swelling at the sternal end of the clavicle, which, up to the present period, has gradually increased in size.

There is now a firm pulsating tumour, oval shaped, and of about the size of a pullet's egg; the sternal extremity of the clavicle, apparently lies directly over the centre of the swelling; it is found, however, on handling the part, that pulsation is only to be felt above the bone; the clavicle is partly dislocated. The pulsation in the tumour is visible; it is synchronous with the heart's beat, and with the various pulses of the body, as the carotid of each side, the radial, and others. The pulsations are all remarkably feeble.

Upon applying the ear to the swelling, the impulse of the blood simply, is heard at each pulsation; there is no preternatural sound at any part of the chest, and the action of the heart, as far as can be ascertained, is natural. When questioned, as to whether he was willing to undergo any measures that might be considered necessary, there was immediately a quickened and somewhat agitated motion of the heart, but the man remarked that he was "flurried." Firm pressure on the carotid artery, occasions a slight diminution in the size of the swelling, as well as in the strength of its pulsation, and under compression of the right carotid and subclavian simultaneously, the effect upon the size and pulsation is very manifest. There is a slight increased redness of the integuments covering the tumour, which, in itself, is moderately firm, but readily compressible. The man has no difficulty of breathing; but, upon taking much exertion, he experiences great uneasiness at the part; his general appearance, as before remarked, is healthy; the countenance is free from anxiety, and devoid of livor.

Mr. Travers having expressed his opinion of the impropriety of any surgical interference with the disease, and simply recommending quietude, the man left the hospital about a week after admission, expressing his intention of returning, if he should find the disease become aggravated.

Remarks.—The nature of the case I have related is, I believe, so decided, that no difference of opinion can exist on the subject, it clearly being a case of aneurism of the arteria innominata; that the disease is confined to the latter vessel, and does not emanate from the arch of the aorta, is fairly to be inferred from the absence of all preternatural sound in the chest, as well as from the want of various symptoms attendant upon the latter affection, when so far advanced as to present a large tumour externally.* It is scarcely worth while to inquire, whether the disease in question results from an universal dilatation of the coats of the artery, or whether a rupture has taken place. I do not know of any distinctive characters by which we can ascertain when an aneurism ceases to be one from dilatation. Nor is the question of any practical importance; for, as I have before had occasion to argue, *all* the aneurisms of large vessels are, in the first instance, what are termed aneurisms by dilatation, and this owing to the comparatively greater portion of elasticity in their coats; so that, in fact, the "dilatation" is the incipient stage of aneurism in large vessels, and whenever this general yielding of the coats has taken place, strongly indicative of their morbid and weakened condition, we may expect, and do find, that as they are exposed to the same impulse of blood, the disease will be increased, and rupture ultimately ensue. I have dwelt to on this point, because there appears be a vague opinion afloat, that an "aneurism by dilatation," is a distinct kind of disease, under no circumstances requiring an operation. But even Scarpa, who has been most explicit on the subject, and anxious to uphold a distinction between the dilatation of an artery, and aneurism, informs us, that in the former affection, death ensues from rupture of the diseased vessel. If such be the end, it surely is idle and foreign to the subject to dispute, whether a yielding of all the coats of an artery should or should not be considered an aneurism. If an operation be applicable in one case, undoubtedly it is in the other, seeing that the termination otherwise is the same in both—fatal.

In the case under consideration, which has been abandoned as hopeless, I conceive the measure of tying the carotid artery, and subsequently the subclavian (if necessary,) should be had recourse to. It is scarcely requisite here to go over the ground again, in respect to the principle of tying an artery beyond the aneurismal tumour; it is the same as in the ordinary method of applying a ligature between the heart and tumour. It has for some time been acknowledged that a diminution simply, of the impulse of blood entering an aneurism, is sufficient, in many instances, for the purposes of cure; but it was supposed that this principle was not applicable to the cases in which the artery was tied on the distal side of the aneurism. Hence Mr. Wardrop, who has the merit of reviving the latter method of operating, observes, in the detail of his first case, that if a distinct branch arise from the sac, or between it and the part where the main trunk is tied, then it may be necessary to secure the branch separately. However, in the case of aneurism of the lower part of the carotid artery, treated by tying the vessel above the tumour, which I published nearly twelve months since, I adduced some arguments on the propriety of applying a ligature to the carotid artery, in cases of aneurism of the arteria innominata. I remarked, that the impetus of the blood would be diminished at the upper part of the sac, the course in which the disease was extending; that a deposition of coagulum would ensue, and that we should "build up the sac" at the point where disease was progressing. The dissection of this case, which proved fatal from ulceration of the artery at the seat of ligature, and hæmorrhage by reflux, afforded me an opportunity of confirming the truth of my reasoning, for I found that the curative process had fairly gone on in a tumour situated at the base of the carotid artery, and consequently subjected to a constantly strong impetus of blood. In fact, the post-mortem inspection of this case, fully established in my mind the important point, that it is sufficient for the cure of an aneurism, merely to lessen the impulse of blood, whether the ligature be applied to the distal or cardiac side of the tumour; Mr. Wardrop's opinion, therefore, appeared to me to be untenable. It is but right to mention, however, that this gentleman has subsequently taken a similar view of the subject with myself.

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* Mr. A. Burns and Sir A. Cooper speak of aneurism of the aorta projecting at the root of the neck, and resembling aneurism of the root of the carotid artery; but these gentlemen tell us nothing of the phenomena of auscultation in such cases.

I may observe that, at the same time I proposed tying the carotid in cases of aneurism of the innominata, I was fully aware that instances of this disease are sometimes met with, in which a closure of the carotid has taken place spontaneously, and yet the tumour has not entirely consolidated, still I considered, that by taking away nearly half the circulation of the innominata, the coagulating process would, in a majority of cases, go on in the upper part of the sac. If the event which I anticipated, namely, the complete consolidation of the tumour, had not taken place, in my case, after tying the carotid artery, I had fully resolved on applying a ligature to the subclavian where issuing from between the scaleni muscles, by which means I calculated that I should reduce the quantity of blood circulating through the innominata, to the portion which must necessarily pass to the branches arising from the subclavian, on the cardiac side of the ligature. There was a patient in Guy's Hospital, under the care of Mr. Key, in May, 1826, affected with aneurism of the innominata, as was proved by subsequent dissection; and, in this instance, I ventured to recommend tying the right carotid and subclavian arteries. The case is reported at page 283, in the tenth volume of THE LANCET. The tumour was formed by a dilatation of all the coats of the artery, and death was apparently induced by suffocation, although the swelling had not attained a great size.

The patient lately under the care of Mr. Travers, I consider is in every respect a fit subject for the operation; he has no disease of the heart or of the aorta; his general health is good, and he is not far advanced in life. One thing is certain, that he is affected with a disease which will inevitably prove fatal unless some active means be used to arrest its progress; are we then justified in considering such a case utterly hopeless? The proposed operation certainly is novel, and barring a solitary instance in which I do not think it was admissible, is untried; it is not, however, a blind experiment, but as I have endeavoured to show, is founded upon an admitted principle in the pathology of aneurism; namely, that a mere *diminution* of the impetus of the blood entering an aneurism is sufficient for the cure. Of the precise quantity of motion under which the coagulating process will go on, in the aneurismal sac, we are not aware; we are only acquainted with the fact generally. But, if it be argued that after the application of a ligature to the right carotid and subclavian arteries, the circulation would go on through the innominata, in order to supply the vertebral and other branches on the cardiac side of the ligature, and that the curative process would thus be interrupted; even admitting, I say, that such would be the case, (but this we yet have to learn,) then I would recommend applying the ligature to the subclavian, on the tracheal side of the scaleni. The arteria innominata would then be placed precisely in the same condition as the lower part of the carotid artery, when a ligature is placed beyond a tumour situated at the base of that vessel; and if the regular curative process, as was fully shown by my case, takes place in one instance so near to the centre of circulation, it would, *cæteris paribus*, occur in the other. It must, however, be acknowledged that the operation of tying the subclavian artery, before it reaches the scaleni, is especially hazardous, from the circumstance of its being closely surrounded by so many important parts; but, I am of opinion, that securing this vessel in the ordinary situation will be found fully adequate to the purpose mentioned. *Ad extremos morbos, extrema remedia*, is a maxim in surgery applicable now as at the time it was delivered; and surely it is better that we employ an extreme remedy, or even a doubtful remedy, than that we should abandon patients to inevitable death.

THE LANCET.

Vol. I.] LONDON, SATURDAY, MARCH 22. [1827-8.

LECTURES
ON THE
THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

Lecture XXII.

Of Laborious Labour.

Although, Gentlemen, in all cases, the use of instruments contrived for the extraction of the fœtus, is to be looked on as a great evil, yet in labours of difficulty or danger, it sometimes happens, that the use of these instruments occasions a smaller evil than that which would arise from the commission of the labour to the unassisted efforts of nature. In these cases, and these cases only, it is, that the employment of instruments becomes justifiable, and to the consideration of these cases, the laborious labours, as they are denominated, we will this morning proceed; commencing with the consideration of the more important accidents to which, in this variety of it, delivery becomes obnoxious, whether during parturition or afterwards. And first, let us give our attention to those accidents which occur, more especially, during the delivery.

It is not frequently that a disruption of the larger air tubes occurs in the progress of laborious parturition; yet this accident is sometimes observed, the trachea or bronchi giving way. After much exertion, the neck and face swell; from the hurrying of the circulation, an erythematous flush of the integuments is produced, and at first glance the patient appears to labour under a sudden attack of erysipelas; the flatulent nature of the swelling manifesting itself on making an examination, by the usual crepitus perceived on compressing, and lightly shampooing the skin with the tips of the fingers. Should emphysema occur, delivery is desirable. To retain the breath and force down, is likely to aggravate the disease, so that the emission of the voice may be recommended. After delivery, if I may judge from the single case brought under my notice, the aperture, seldom perhaps capacious, heals spontaneously, and without inflammation the air is absorbed. The patient under my care, a stout Irishwoman, disposed to clamour and to make violent efforts, was, in a former labour, attacked with the laceration, recovering on both occasions without a single bad symptom. The second time, she was delivered by the help of the long forceps.

In labours, protracted and violent, the vascular system may give way; nor is the patient always of plethoric habit. Sometimes the smaller parts of this system, sometimes the more capacious, are burst, and the blood may become extravased into any of the three great cavities—the head, chest, or abdomen. After a most laborious labour, a young lady, suffering a very severe pain, the fœtus suddedly burst into the world; but at the same moment the blood began to gush from the lungs, and speedily the patient was suffocated. A woman, of a system by no means plethoric, after uterine hæmorrhage, neither very violent, nor very long continued, suddenly fell back upon the bed and expired. On inspection afterwards, the mouth of the womb was found to be dilated to the breadth of a dollar, the shoulder presenting, and the right ventricle of the heart was laid open to the extent of one or two inches, as if it had been wounded by the knife, and the pericardium contained an ounce or two of blood. For when the heart bursts, a very small bleeding seems to accompany the cessation of its action. To a very sensible friend, Mr. Bryant, of Kennington, I am indebted for this case.

Though not a certain preventive of vascular or cardiac laceration, the abstraction of blood from the arm seems to be the remedy more especially deserving trial. It is not always with repletion, nor under the more violent efforts of the uterus, that these disruptions occur; nor is there, in general, a previous warning; they are, however, to be apprehended, more especially if the system is full of blood, and if the uterine efforts are violent. Delivery seems to be clearly indicated, when these ruptures are reasonably apprehended; and though the abstraction of blood from the arm is by no means a certain security against laceration of the heart or vessels; yet, in prudence, this remedy ought to be tried. Voluntary urging, in these cases, is undesirable. The calmer the patient is, the better.

In the commotion of labour, sometimes the genitals give way in the upper part of the pelvis, the body of the womb yielding occasionally, and still more frequently the neck or vagina. Longitudinal lacerations are not common; in general, the rending is transverse, and lies opposite the promontory of the sacrum, or the symphysis pubis, the regions most obnoxious to laceration. Frequently, the rent is carried completely through the peritoneum, so that the hand might be carried up among the intestines; occasionally, the rent penetrates to the peritoneum without passing through it, the inner textures, vaginal or uterine, alone giving way; nor am I fully convinced that these lacerations, when seated in the upper part, are much less dangerous than the preceding. The fœtus may be expelled by the same effort which lacerates the uterus, as in one case which fell under my own notice; or the genitals yielding, the head may remain impacted in the pelvis, the body alone, of the child, lying forth through the opening into the peritoneal sac; or, lastly, and most frequently, the womb or vagina yielding, the whole fœtus, with its secundines, may pass through the laceration, so as to lodge among the intestines, in the manner which this cast so well demonstrates.

Variously, and not always with just blame of the obstetric attendants, these lacerations of the genitals may be produced; sometimes by rude attempts to introduce the hand, sometimes by the ill-directed introduction of the forceps or the lever, sometimes by the rash and rapid abstraction of the head, and sometimes by the long-continued and violent, but unavailing, efforts of the womb to expel the fœtus, the uterus tearing under its own exertions. The symptoms and treatment of lacerations after they have occurred, we will consider at large on some future occasion, confining our observations, at present, to the prevention of this tremendous accident. Lacerations may be sudden, no premonitory symptom preceding, so that we have not always an opportunity of taking precautionary measures; yet, now and then, the accident is foreshown more or less distinctly, by the violence of the uterine efforts; and, above all, by unusual, and, as it were, unintelligible, pains. "The cramp," the patient exclaims, and suddenly the womb gives way, or stabbings or cuttings, unusually severe, are felt for some minutes, before the laceration in the region of the rent. In a scientific midwifery, violence has no place; you, therefore, I trust, will never lacerate the genitals, by the clumsy use of the lever or the forceps, by a hurried abstraction of the head, or by coarse and forcible attempts to introduce the hand into the womb or vagina. Sometimes, however, without this manual violence, the womb yields spontaneously, nor do I know any certain mode of preventing this, except by the abstraction. It is much to be regretted, that (as before observed) we possess, at present, no certain and timely indication, by which the accident may be foreknown. A rending sensation, and a sudden collapse of the strength, with a small discharge from the womb, are sometimes the first manifestations by which the laceration is indicated, so that there is no room for a preventive practice; nor may it be amiss to remark here, that when disruption has occurred, the case, though dangerous, is not hopeless; and that the abstraction of the child by turning, may be looked on as a principal remedy.

Among the accidents of labourious labour, laceration of the perineum, together with the parts adjacent, deserves especial commemoration. More rarely the head has forced its way through the lower extremity of the rectum and anus, the vagina yielding posteriorly. In some few cases, the perineum dilating greatly under the pressure of the cranium, an aperture has been forced between the genital fissure and the anus, the child leaving the pelvis and passing through the opening. In most instances, however, the perineum gives way, in consequence of the fissure enlarging towards the anus; sometimes directly and extensively, so that the sphincter ani is torn, the anus and genitals of consequence forming but one aperture. Now and then, however, the perineum yields obliquely, the rent being carried down on one side of the rectum, so that the gut escapes; and very frequently, whether direct or oblique, the laceration is of small extent only, perhaps not exceeding half an inch or an inch. When the rents are of small extent they occasion but little inconvenience; when the intestine is involved in the injury, the retentive powers which restrain the fæces, lost for a longer or shorter period, are perhaps never thoroughly restored. When the laceration is carried downward obliquely to the side of the anus, the power of restraining the contents of the bowels remains.

Rude attempts to introduce the hand—the rapid abstraction of the head by embryospastic instruments—or the sudden eruption of the cranium from the pelvis, under the natural efforts, at a time when the perineum is unprotected by the accoucheur: these are the principal causes of laceration;

and now and then, perhaps, the rent may be occasioned by the descent of the fœtal shoulders, when broad. If many children have been born before, lacerations are less likely to occur, as a rigidity of the part met with in first labours, especially if women are advanced towards middle life, seems to be a principal cause disposing to this accident. Bleeding from the arm—fomentations of the genitals—protective support of the perineum, with resistence to the further progress of the head in the way here demonstrated—are the best preventives of the accident; and, though often urged to do so by friends about her, the patient should not force voluntarily, when the head is at the point of emersion, and the perineum is in danger of giving way. Dangerous distention is easily ascertained by feeling the part. As, however, the whole subject will be considered more largely hereafter, I forbear, at present, from further remark.

In laborious labours, the urethra is liable to be more or less obstructed, and large accumulations of urine in the bladder may arise in consequence. Inflammation of the cervix vesicæ, swelling there, perhaps spasmodic constriction of the upper part of the urethra, and the compression of this yielding duct between the head of the fœtus and the front of the pelvis, are the most probable causes of these obstructions. The less the patient drinks, and the more she perspires, in these cases, the better. When the bladder is full, I have often perceived it through the abdominal coverings, forming a large tumour, to be felt distinctly in the front of the abdomen lying over the uterus. By cautiously bearing the fœtal head from the front of the pelvis, and passing along the urethra a catheter flattened and small, the urine may now and then be drawn off; but in laborious labours, when there is real difficulty, the catheter sometimes cannot be passed up. If the urine cannot be withdrawn, the delivery must be accomplished artificially, provided the accumulation is becoming so large as to endanger the bladder, and, in general, retention of the urine indicates much pressure, and the risk of slough, and is an argument for delivery.

When the efflux of the urine is prevented, lacerations of the bladder may occur. Sometimes the body of the bladder gives way into the peritoneal sack posteriorly; sometimes the urine forces its way out in front, so as to become diffused in the cellular web externally to the peritoneum; and, in some cases not the least frequent, the back part of the neck of the bladder gives way into the vagina. If the urine be diffused in the cellular web, lying between the front of the bladder and the abdominal coverings, the case must, I suppose, be deemed desperate; if the water escape from the bladder behind, so as to collect within the cavity of the peritoneum, by withdrawing the urine, washing out the peritoneum with the proper cautions; and, tying up the aperture formed by the laceration, judging from experiments upon animals, I conceive that the life of the patient might now and then be preserved. From a successful case under the care of my friend, Mr. Gaitskell, of Rotherhithe, I infer, that where the neck of the bladder is burst open behind, the part will sometimes close up, provided a catheter be worn for a few weeks. In the case to which I have alluded, the closure was very remarkable and certain. The same practice failed in a second case, where, however, the rent was less extensive. The laceration of the body of the bladder is occasioned by the accumulation of urine, and prevented, therefore, by evacuating it, whether by the catheter or the natural efforts. The disruption of the neck arises from the gathering of the water in the bladder, joined with some descent of the neck towards the outlet of the pelvis. In this state of the parts, on entering the pelvic cavity, the head, as here demonstrated, divides the bladder, as it were, into two chambers, one lying above the brim in front of the abdomen, the other below and behind the symphysis pubis. On this latter chamber, as the head advances, whether under the action of the instruments or of the natural efforts, great pressure is made, and by this pressure, as the apparatus shows you, the bladder may be torn open, the urine issuing in a sudden gush. From sloughy openings of the cervix vesicæ openings of this kind differ widely; in the former there is loss of substance, in the latter disunion merely—the former openings, perhaps, never heal, the latter sometimes.

When urine accumulates behind the symphysis in the neck of the bladder, this part bearing down before the head, the bladder should be emptied with great care, and much attention is sometimes necessary to effect this; sometimes the catheter cannot be introduced, or if it be passed into the bladder, a complete evacuation of the urine cannot be obtained without compressing the bladder extrinsically, by first laying the hand on the abdomen below the navel, and afterwards pressing the cervix where it prolapses behind the symphysis pubis. In these cases of course the head must not be brought forward too rapidly by the lever or the forceps. These lacerations of the bladder are all of them rare. In general the bladder should be kept empty in all labours. Little drink; much perspiration; spontaneous discharge of the urine; the catheter; are the principal means of securing this advantage. The *flat catheter* recommended by Ramsbotham, an excellent practical accoucheur, is an useful instrument. Force is always improper, when the catheter is employed. Apertures occasioned by the catheter in the back of the cervix vesicæ, or still more frequently of the urethra, I have myself seen. By gently pushing back the head of the child, room may sometimes be made for the admission of the instrument.

Dreadful contusions and mortifications are apt to occur in laborious labours, nor are they in consultation practice infrequent. From the rude action of the hand (perhaps), from violent efforts to abstract the head with embryospastic, or other instruments, from frequently repeated, but unavailing, labour pains; and above all, from impaction of the head in the cavity of the pelvis between the front and back; the locked or incarcerated head, as it is called, extensive mortifications, sweeping all round the upper or inferior part of the vagina, may be produced. If these sloughs are superficial, affecting the inner membrane only, they are less dangerous, though adhesions, contractions, and indurations of the vagina are too often the ultimate result. If the labia pudendi or surface of the perineum be injured internally in this manner, the patient generally does well; but if the sloughs lie above and penetrate deeply, death at the end of a few hours, or a few days, is not infrequently the result, the system giving way under collapse, or should the patient escape, the bladder or rectum are not uncommonly, laid open into the cavity of the vagina, in consequence of a detachment of the sloughs. Of the management of these sloughs, when produced, I may take occasion to treat hereafter, confining my remarks at present to the preventive treatment. The more common causes of them, already stated, are the rude pressure of the hand, the violent use of instruments, and the pressure exerted by the fœtal head, whether above or below the brim of the pelvis; and it is important to recollect this, in order that you may be on your guard against them. A frequent pulse by no means generally implies the risk of slough; but, on the other hand, while the pulse between the pains remains below 110, I think the patient is tolerably secure. I am not prepared to assert, that the contusion producing slough, never occurs without collapse of the strength; but in general, an incipient failure of the powers gives us an useful intimation of the bruising of the parts. Many women, if the head remain above the brim of the pelvis, may do well, although they have been in strong labour for more than twenty-four hours after the discharge of the liquor amnii; but in long-protracted labour there is always danger, even when the fœtus lies free in the false pelvis above the brim, the pressure being occasional only; I mean during the pains. When the head is down between the symphysis pubis and the sacrum, so as to become incarcerated there, and compress permanently the parts between the front and back of the pelvis, and this, too, for hours together, five or six, for example, women may suffer little notwithstanding; but wherever the head is locked up in the pelvis in this manner, there is always reasonable cause for apprehending that fatal contusion and slough will occur, unless the cranium be promptly liberated; for in these cases the pressure is not occasional merely, but continued, not (as you may perceive from this apparatus) slight, but very forcible; the bladder and rectum being completely obstructed by it, the bladder especially, and the bones of the fœtal cranium becoming displaced. It is much to be wished that some experienced practitioner could discover for us a rule by which we might determine with precision the moment when contusion, likely to terminate in these formidable sloughs, is commencing; for such rule has not yet been formed. I may, however, observe in general, that when the pulse is not permanently rising, nor the strength failing, nor the labour protracted beyond twenty-four hours of strong exertion, after the discharge of the waters, if the head be above the brim, nor more than three or four hours if it be locked loosely in the pelvis, nor more than half an hour or an hour, if more firmly locked, then the patient is secure against slough; but, if the converse of these conditions occurs, sloughs are to be apprehended. And let me add, too, more simply, that a pulse of 110, and vigorous powers, are a plain and valuable indication of security, and that you have good cause for alarm and vigilance when the pulse rises, and the strength begins to fail, and the countenance acquires an expression of anxiety, and there is that aspect which leads the practitioner to remark, that "the patient appears very much worn."

In laborious labour it sometimes happens, that inflammations commence in the substance of the cervix uteri and vagina, the rectum and bladder, perhaps, being more or less involved in the disease. A crust of buff upon the blood, an unusual tenderness of the parts between the pelvis and navel in front, and a permanent frequency of the pulse, are perhaps some of the most decisive characters of this accident; and venesection and delivery may be looked upon as the most effectual remedies. Fomentations, leeches, laxatives, and similar remedies may be proper after delivery, but of these hereafter.

During easy parturition sometimes, but more frequently under violent efforts, the pulse rises permanently to 120 in the minute; the heat of the surface increases;

the tongue becomes browner; the face is flushed, as in typhus fever; the cry of the woman is sharper and more frequent, and she shows herself impatient of her pains, irascible, morose, and perhaps at length delirious. All these symptoms may vanish on delivery; or after parturition is completed, they may continue, terminating at last in puerperal mania, or other troublesome cephalic affections. If the attack be slight, it may be found to yield under the abstraction of stimuli, and a venesection of sixteen or twenty ounces; if more violent, it may require the use of the tractor, forceps, or perforator. Wine, and other fermented liquors, are clearly improper. The symptoms are, perhaps, sometimes produced by the abuse of these excitements. This affection may be denominated puerperal irritability.

In laborious labours the strength sometimes fails, the degree of collapse varying greatly. If the depression of the powers is extreme—the pulse frequent, but failing—the body cooling—the pain remitting—the countenance falling, and death appearing, as it were in the face—there are, I believe, generally, in such cases, extensive and deep contusions, and though the patient may, perhaps, recover, yet death, in a few days, or a few hours, is to be expected. Delivery seems to be indicated here. A still-born child is probable. But when collapse occurs in these laborious labours, often it is in slighter degree only, and independently of contusion or slough, it may be produced by the fatigue arising from much labour-pain, want of sleep, pacing the chamber, or other analagous causes. An opiate, or other anodyne, in quantity sufficient to give the patient sound sleep and rest, may sometimes be of service. Delivery is desirable, but if all other symptoms were favourable, I should be unwilling to administer instrumental assistance, merely because the patient was a little weary.

Among the accidents of laborious labour, convulsions may be enumerated, but happily their occurrence is not frequent—or, to speak more correctly, they are rare. Insensibility, and spasmodic concussion of the whole frame, concurring frequently with the labour pains, are the leading characters of the disease. Large bleedings, refrigeration of the head by ice or cold lotions, purgation of the primæ viæ, and delivery, are the principal remedies: but of this hereafter. Flushing of the face, throbbing of the carotids, noises in the ears, failures of sight, of articulation, of feeling, or motion in particular members of the body, together with a shuddering of the muscles, are, I believe, the more common premonitory symptoms—and convulsions are the more to be apprehended, if the patient have been attacked with the disease before. Bleeding, and if of easy accomplishment, delivery, are the best preventives of the attacks.

After-flooding is very common in laborious labours, being, perhaps, rather salutary than injurious; treat it according to the rules laid down. The womb is, from fatigue, indisposed to contract after these deliveries; beware, therefore, of carelessly hurrying forth the placenta, lest inversion should occur. The method of managing the birth of the secundines was explained at large, when we treated of natural parturition.

After laborious labours, the fœtus is frequently still born, in consequence of compression and contusion of the brain; frequently, the form of the cranium is altered; generally, the scalp is much swelled. Pressure on the chord within the womb, may also, sometimes, occasion a still birth. No still-born child ought, in these cases, to be rashly pronounced irrecoverable. The diligent and effective use of the resuscitants, can alone enable us to determine whether restoration be practicable; for it well deserves remark, that fœtuses subjected to the higher degrees of compression, are sometimes unexpectedly revived; while, in other instances, our attempts to resuscitate, though actively urged, are wholly ineffectual, although, from the slightness and short continuance of the pressure during the labour, we have entertained sanguine expectations of success. Artificial respiration, and the warm bath, are principal remedies here, and the means ought to be in readiness.

The labia pudendi, and the parts about the anus, sometimes swell greatly in laborious labours; the probable cause of this intumescence is, obstruction of the vessels above—delivery is the best remedy for it. These swellings indicate pressure, and ought always to awaken vigilance.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXXII.

On Magnesium and its Compounds; Manganese and Iron.

We now arrive to the base of magnesia, namely, the metal *magnesium*, which has never yet been obtained in a pure state, but which we are led to conclude does exist.

When magnesia is submitted to negative electricity with mercury, a compound results, which decomposes water, and forms magnesia; and from the properties of this compound, it would appear, that magnesium is a metal rather heavier than water, and highly attractive of oxygen. The number 12 has been set down for its equivalent.

Magnesia, or the oxide of magnesium, is supposed to consist of 12 magnesium, and 8 oxygen, giving twenty as its equivalent. It is obtained by calcining the carbonate, and in consequence of the presence of lime in most of the sources of magnesia, the lime is rendered caustic by the calcination, and the magnesia, in consequence of such admixture, acquires an alkaline appearance. Magnesia does not slake when exposed to the air, or submitted to water; and, in this respect, presents a difference from lime. It is a white insipid substance, and changes the blue of violets to a pale green. It has been found in the *hydrous* state at Hoboken, in New Jersey, and in some of the Shetland isles, in Serpentine. This native magnesia is of a greenish colour, and of a soft and lamellar texture.

The *chloride of magnesium* may be obtained by submitting the magnesia, when red hot, to the action of chlorine, by which process oxygen is expelled, and a substance produced, which moisture converts into a muriate of magnesia. The *muriate of magnesia* is a very deliquescent salt, and is difficult to crystallise; it is contained in sea water in great abundance, and in some springs. A pint of sea water contains 23 grains of the salt, and therefore it is not unfrequently obtained from that source. In addition to this quantity of muriate of magnesia, the same quantity of sea water contains 180 grains of common salt, 15 grains of sulphate of magnesia, and 17 grains of sulphate of lime. It is found that the sea water does not materially differ in composition in different latitudes, provided it be taken from a certain depth. *The nitrate of magnesia* is an unimportant salt.

The *sulphate of magnesia* is the first salt worthy consideration, which may be obtained by adding sulphuric acid to the mother liquor of sea water, after the common salt has been crystallised; it is much used in medicine as an aperient, and is employed largely in the preparation of the carbonate of magnesia. Its crystal is a quadrangular prism, terminated with dihedral summits in opposite directions; its taste is bitter, and it is soluble in its own weight of water at 60°. It was once procured from the springs of Epsom in Surrey, and is, therefore, often called *Epsom salt*. At one time the sulphate of magnesia of commerce was adulterated with the sulphate of soda, but this was easily discovered, by treating the solution of the suspected salt with carbonate of potash or soda, the inferior weight of the precipitate showed the amount of adulteration, since 100 parts of pure crystallised sulphate of magnesia furnish 40 parts of dry carbonate of magnesia.

Now, as regards the *carbonate of magnesia*: all that we can say of the carbonate of magnesia of the shops is, that it is a *hydrated carbonate*; but whether it be a compound of carbonic acid and magnesia, or a bicarbonate of magnesia, or what may be its nature according to the atomic theory, I shall not take up your time in discussing. With respect to the *bicarbonate of magnesia*, a solution of it furnishes a useful substitute for soda water in calculous and nephritic complaints. The taste of this water is by no means disagreeable; and in cases where large quantities of soda water have been taken, magnesia water may be substituted with advantage. The *borate of magnesia* is not a salt of any particular importance; but it forms one of the varieties of *boracite*, which is one of those crystalline bodies which become highly electric by heat.

The characters of the salts of magnesia will be evident enough to you from the history given; they are not precipitable by ammonia, although magnesia and carbonate of magnesia are thrown down by adding soda and the carbonate of soda. Phosphate of soda gives no precipitate from a carbonate of magnesia until the carbonate of ammonia be added, and then a triple salt, a phosphate of ammonia and magnesia, is obtained. Now, the separation of lime from magnesia is a problem often occurring in the chemical laboratory, and it may be effected in various ways. Supposing that you have lime mixed with magnesia in solution, and we will take a muriatic solution of the two; it will be found, that by adding carbonate of ammonia to a solution of magnesia, no precipitation takes place (that is, supposing the carbonate of ammonia to be pure); but if we add the ammonia to a solution of lime, a copious precipitate of carbonate of lime will be thrown down; it is evident, therefore, that if we add carbonate of ammonia to the mixed solution of magnesia and lime now before us, we shall throw down the lime and leave the magnesia in solution. You may then precipitate the magnesia by other means, as by pouring into it a solution of carbonate of potash, which would instantly throw down the magnesia in the form of a carbonate. Now this is all very good in point of theory, but we find, in practice, that the magnesia goes down in small quantities with the lime, so that, although the magnesia appears not to be affected by the carbonate of ammonia, yet a little of it will go down with the lime; and therefore, when we come to a delicate analysis, where great nicety is required, this method is not good. There is an excellent mode of separating magnesia from lime, which is by the *oxalate of ammonia*. Here is a solution of muriate of magnesia, and here is a solution of oxalate of ammonia, which will not precipitate the magnesia; if, however, lime be present, it will occasion a precipitate of oxalate of lime; so that if we add oxalic acid, or oxalate of ammonia, to a solution of muriate of magnesia containing lime, the lime will go down in an insoluble powder, and the magnesia will be left behind, and this I consider to be the best test for the presence of lime, and the best mode of separating it; for although a small quantity of magnesia does fall down with the lime, even in this case, still the quantity is so small as to be of no importance. Converting the magnesia and lime into sulphate, is another mode of separating them, the sulphate of lime being a very insoluble salt, and the sulphate of magnesia very soluble; but this is rather a tedious process.

Magnesian fossils are, generally speaking, characterised by a peculiar soapy feel and greenish colour; one of them is called *steatite*, or *soap stone*; the *chrysolite* also contains more than half its weight of magnesia. Another variety of magnesia is the *dolomite*, or the magnesio-carbonate of lime, a species of marble found in the Alps. The magnesian lime stone again is very commonly occurring in nature, and requires to be used with great caution as a manure, in consequence of the magnesia, after its calcination, remaining in the caustic state. The minerals called *talc* and *abestos* also contain magnesia.

Now the metals hitherto considered are characterised by their very high attraction for oxygen; by their being very combustible; by their decomposing water with great energy, and by the alkaline nature of their oxides, forming potassa, soda, lithia, lime, baryta, strontia and magnesia, which have received the names of alkalies, or alkaline earths; the two first being called fixed alkalies, in opposition to ammonia, or the volatile alkali. The metals now to be examined are such as have been long known under that name, and are characterised by possessing a strong attraction for oxygen, by decomposing water, at common temperature slowly, or rapidly at a red heat; and the first of the metals of this class on our list is *manganese*.

Now *manganese* occurs abundantly in nature, in the form of black oxide, of which there are several species upon the table. Here is one which was for a long time regarded as an ore of iron, until its nature was more fully determined by Scheele; it used to be called *magnesia nigra* by the old writers. In order to obtain the metal from this ore we mix it with oil or charcoal, and expose it to a red heat for a long time, when the metal is imperfectly produced. Here is a specimen of the metal, which is of a bluish white colour, very brittle and difficult of fusion. Here is another specimen of manganese, nearly in the metallic state, but in the form of a brown powder; but in its metallic state it is a metal of no importance. It has a strong attraction for water, decomposing it slowly at common temperature and speedily at a high temperature; and it is susceptible of three degrees of oxidization.

The *protoxide* may be obtained by digesting the black oxide in muriatic acid, when, as you have formerly seen, a great quantity of chlorine escapes, and there is, at the same time, obtained a solution, which may be filtered, and is then transparent and colourless, holding a protoxide of manganese in solution. Now, if you precipitate this solution by potash, a white compound falls down, which is a protoxide of manganese in combination with water, a *hydrated protoxide of manganese*. This soon changes colour, in consequence of the action of the air upon it; but if collected, and rapidly dried, it is of a brownish colour. Its analysis gives us 28 of metal, and 8 of oxygen, so that its equivalent is 36. If you expose the peroxide of manganese to a red heat, it gives out a considerable quantity of oxygen, and it becomes converted into a red or brown powder, which is the *deutoxide of manganese*, which is composed of 28 metal, and 12 oxygen, its equivalent being 40. Now, with regard to the *peroxide*, it is easily obtained by acting upon the protoxide or deutoxide, with substances which furnish oxygen; but, as it is found in such abundance in nature, that is unnecessary; it is used in great quantities in the arts, in the manufacture of bleaching materials. If you heat the deutoxide very intensely, it gives out some oxygen, and becomes converted into the protoxide; but heat the protoxide as intensely as you please, you cannot separate the oxygen from it, so great is the attraction of this metal for this last proportion of oxygen. The protoxide forms all the salts of manganese, the deutoxide a few, and the peroxide none. The sources of the peroxide, in this country, are very numerous; it is found in great quantity in Devonshire and Cornwall, and some in Aberdeenshire; it is met with massive, as you see in this specimen, and in the form of a black powder; and it is found in radiated crystals in the Hartz. Now, it would seem, besides these three oxides, as if the metal were capable of taking up another portion of oxygen, of becoming converted into *manganesic acid*; for when you mix together black oxide of manganese and nitre, and ignite them, the mass runs down into a dark green substance, long used as a matter of curiosity, under the name of the *chameleon mineral.* When this substance is put into water, of different temperatures, under various circumstances, it acquires a variety of colours, gradually losing oxygen, and becoming converted into green, purple, red, brown, and, ultimately, into a black, and the peroxide of manganese is deposited.

If you evaporate the solution of the protoxide and muriatic acid to dryness, or heat equal parts of the black oxide and sal ammoniac in a crucible, and then dissolve the mass in water, and filter it, you will obtain a *muriate of manganese*; and if this solution be evaporated to dryness, and fused out of the contact of air, you may obtain the crystallised *chloride.*

The salts of the protoxide of manganese are generally of a white colour, soluble in water, and crystallisable, but the solution becomes turbid on exposure to air. Here, again, is a solution of *nitrate of manganese,* obtained by digesting the peroxide in nitric acid, along with gum or sugar, which abstracts oxygen, and the protoxide is dissolved in the acid. Here is a triple salt of ammonia, sulphuric acid, and manganese; and here, again, is a dark pink coloured solution of the deutoxide in sulphuric acid, but it is not crystallisable, nor do we know anything of its compounds. The black oxide is the only useful compound of the natural productions. When the oxide is mixed with glass, you may have the glass coloured with all the tints, from pink down to purple; and it is called by the glass-makers, glass soap; because, if any portion of carbonaceous matter should have fallen into the glass, and it thereby be discoloured, you can, by adding a small quantity of manganese to it, which gives out its oxygen, cause the carbonaceous matter to be destroyed, when submitted to heat. The use of the black oxide of manganese, in the manufacture of the common black porcelain, is to give it a black colour; the finely divided oxide is mixed with the clay, previous to its being formed into vessels, and it retains its colour at a very high temperature.

This, then, brings us to the next metal on our list, *iron,* which will require a considerable share of your attention. Its equivalent number is the same as that of nickel, namely 28. That it is a most abundant metal, you are aware; as, also, that it is a most useful one: of its ores, its oxides are the most important, and from them we are extensively supplied with metallic iron. Its properties are now very well known, but it does not seem to have been generally employed by the ancients: since their instruments of war, and for culinary purposes, seem to have been made of a mixture of copper and tin, or copper and zinc, but now iron is used for many purposes, for which it was formerly deemed inapplicable.

First, then, of *native iron*; this is found in various parts of the world, but hitherto in detached masses, and different travellers have described the appearance and weight of several masses of native iron; and it was generally imagined that such masses were left by the inhabitants of former times, who had been working the metal. At length, however, masses of native iron of several tons weight were discovered, especially in South America, and this led to some suspicion as to the source to which I have adverted; and within the last thirty years an analy sis was made by Mr. Howard of various specimens of native iron, and it was found that they all contained an alloy of nickel; now this was a curious fact, and led to the doubt whether they might not all be of meteoric origin, since it was found that the meteoric masses of iron also contained nickel. In 1751, a meteor was seen to fall in Croatia, by a number of respectable persons; it appeared like the size of the moon, and when it approached the earth it burst into several pieces; one of the masses seen to fall was picked up, examined, and found to be iron, resembling in its properties the specimens of native iron found in other places, and especially in containing nickel; so that we have the strongest reasons for believing that these masses are of meteoric origin. But, when you ask me how these masses are formed, you ask me a question which I cannot so easily answer. Whether they are formed by any sudden combination of material in the air, or whether, as some have supposed, they are masses detached from the moon, I cannot pretend to say. A mass weighing 1600lbs. was discovered by Pallas in Siberia, and a mass weighing 15 tons in South America, in the State of Peru. A mass was seen by several persons to fall on one of the estates of Major Topham, in Yorkshire, which weighed half a hundred weight. In the museum of this institution there is a specimen brought from India, weighing 25lbs. All these meteoric stones have been found to be alloys of iron and nickel, and as all these specimens of native iron also contain nickel, we have strong reasons for referring them to one and the same origin. It is also a curious fact, that when iron has been found among savages, that they always have described it as brought from some mass of that metal in the interior of the country from which they have detached it, and not obtained by working any of the ores.

There are two oxides of iron, a *protoxide,* consisting of one proportional of metal, 28; and one of oxygen, 8; giving 36 as its equivalent; and a *peroxide,* compounded of 28 metal, and 12 oxygen, or a proportional and a half. I shall describe them briefly in the next lecture, and then proceed to their chemical properties, and to the history of the salts of iron.

RICHMOND SCHOOL OF ANATOMY.

To the Editor of The Lancet.

Sir,—Relying on the zeal you have always evinced in the cause of the medical student, and knowing that your anxiety for his welfare is not confined to London alone, but extends itself to whatever part of the earth he may be placed, in the study of his profession, I beg to lay before you a few observations on this school; and I do so, not from any hasty desire of censuring, but in the hope that, through the medium of your Journal, the attention of the Directors of this establishment may be seriously called to the subject. I would not take this means of obtaining redress, were I not certain that I express the sentiments of the majority, if not of all, the thinking part of the class; and that, from the candour and liberality of the lecturers, and the interest they have always taken in the instruction of their pupils, the few errors I shall point out, need only their consideration to be corrected; and I must, *in limine*, disclaim any personal antipathy to any one of them. I believe them all worthy of our esteem, both on account of their talents and attention to our interests. It is not of the men, but measures, we complain. Nor would I be supposed to be altogether dissatisfied with the school; far from it. From every thing I have seen of the other schools in Dublin, and from what I have heard of those in London and Scotland, I should be sorry to exchange the Richmond for any of them. That it may be the better seen what advantages it possesses, I shall, in proceeding to expose its faults, mention the superior opportunities it affords of obtaining information.

I shall begin with the Hospital, as there our labours for the day usually commence. The Richmond Hospital is attached to the House of Industry, which, comprising lunatics, patients affected with chronic and acute diseases, contains about 2000 paupers All dying here, whose bodies are unclaimed, are sent to the dissecting room. The parts in the House of Industry open for the students, are the Richmond Hospital, at which is held a daily Dispensary for diseases of the eye; the Talbot General Dispensary; and the Chronic Hospital; the Haselwich Fever Hospital, and the Whitworth Chronic Medical Hospital; those who attend Dr. Cuming's lectures on medicine, are at liberty to attend the Wellesley Fever Hospital also. To all these he is admitted to the post-mortem examinations, which are always instituted. Here, it must be allowed, are ample means of studying pathology. The surgeons of the Richmond Hospital are Messrs. Peele and Carmichael, and Dr. M'Dowel; the two latter only take the active part, the former acting more in the light of consulting surgeon. Much to the honour of Dr. M'Dowel, he takes great pains to drive information into the heads of the pupils. He has placed over the head of each bed a ticket, on which is written the disease and symptoms the patient labours under, and the treatment adopted. This plan, I am sorry to say, Mr. Carmichael does not adopt. This is the more to be wondered at, as its execution is so easy; and he is the principal advocate of medical reform in Dublin, and that too, on the ground of advantage to the student. I should hope, therefore, that this omission arises from oversight only, as every one would, I am sure, be sorry to doubt the motives of one who, in his profession and as a gentleman, stands so high as Mr. Carmichael does. This gentleman, however, occasionally gives us a good clinical lecture, and of which it is only to be regretted, that they are so much like angels' visits, so few and far between. Dr. M'Dowel gives a clinical lecture twice a week, the only faults of which are, their minuteness and length. And here, it may be remarked, that this is one ground of much complaint amongst the pupils; it applies to his anatomical as well as surgical lectures; much time is thus taken up, which might be more usefully employed in reading, or in the dissecting room. The utility of lectures at all has been doubted; if they are of use, it is certainly chiefly by directing the studies of the pupil, and not by superseding reading on the subject; on the contrary, attentive reading and observation at the bed side of the patient, would better supply the place of lectures. Clinical lectures are useful, by pointing out the diagnostic symptoms, and the peculiarities of the case under consideration; and this is the better done at the bed side of the patient. In justice to Dr. M'Dowel, I must observe, that he employs this mode of conveying information, much more than his colleague.

I have said, that post-mortem examinations take place, but in what manner they are conducted, I know not, as we never hear of them until they are finished, or until occasionally the mangled subject reaches the dissecting room.

In anatomy, we have one great advantage in not depending on the precarious supplies of resurrection men. The House of Industry frequently affords a sufficiency of subjects, and in this way we get them in a much more recent state. But here there is much room for amendment; first in the multiplicity of lectures: that it may be better seen how this interferes with our interests, I shall briefly go over the course of each day. The hospital business and clinical lecture occupy our time till ten in the morning; from a quarter after ten until half past twelve, excepting a short interval, is taken up by anatomical lectures; from one till two there is a lecture on medicine; on chemistry, from three to four; every alternate day there is a lecture on surgery from two till three; there is frequently another lecture on anatomy on the days the surgical lecture is given; on the intermediate days it is delivered from three to four o'clock. Now with all these lectures, what time can there be for the most important of all our duties—dissecting? The answer must be, none; and if so, the superiority of the Richmond as a school of anatomy, ceases. I do not dispute that there is much to be learned from every one of these lectures, but I do say, that there is much more information to be obtained in the dissecting room, than from any of them; the consequence of this arrangement is, that the student is obliged to neglect dissecting, or be deprived of some of the lectures. This, although it is a harsh term, I must call a gross injustice, and which, for the sake of the school, as well as for the sake of the students, I hope will not be repeated another season. The lectures themselves are replete with valuable information, and are always given with the subject on the table. But there is certainly an unnecessary multiplication of them; in London, I believe, one lecturer goes through the whole course in four months, and surely we are not so much more prosy here, as for two not to be able to include it in six months. I have no doubt that some subjects are much more agreeable to the lecturer than others; but he has a duty to perform, and, I would ask, what would be thought of a class who only attended those lectures which suited their taste? How would Dr. M'Dowel look, in his childish plan of calling the roll, to behold the benches empty? There is one other abuse which loudly calls for reformation—the non-attendance of the demonstrators in the dissecting room. Last year, when I should have been more particularly glad of assistance, I could seldom obtain it but by seeking Dr. M'Dowel, and asking it as a favour. There are now two demonstrators, but they seldom favour us with their presence, except in the absence of some of the pupils, to purloin a part of the subject that has been allotted to them, to prepare for some of the lectures. This, I must say, is also a great injustice. Much valuable time is lost to the student, in his first attempts on the subject; by a few unfortunate strokes of the scalpel, the remainder of the dissection is, perhaps, destroyed, which the superintendence of a demonstrator might have prevented. Surely if Dr. Flood and Dr. M'Dowel consult the good of the school, they will not allow such a barrier to its success to remain. By an hour or two's attendance each day, and directing the pupil how to proceed, and by telling him what Scyllæ and what Charybdes to avoid, they would confer a benefit on the class. These, Sir, are the circumstances which induced me to request the assistance of your Journal; and if it be the means of effecting the wished-for alterations, it will considerably increase the advantages of the Richmond School, and will add another benefit to the many it has already obtained for the profession, and more particularly for the student.

I remain, Sir,
One of your constant readers,
Filius Æsculapii.

ROYAL INFIRMARY, EDINBURGH.

FRACTURE OF THE TROCHANTERS, FOLLOWED BY TETANUS.

Though the details of this case are before me, I prefer giving Dr. Hunter's account of it, to prevent repetition and misconception. Having dissected out the third of the femur in the theatre on Thursday the 28th of February, he expressed himself to the following effect:—

"The gentlemen attending the surgical wards, who paid much attention to this case, will recollect, that the patient, an old man, (A. Ormiston,) was admitted about five weeks ago, having fallen in the street some days before, with symptoms resembling those attending the common luxation of the femur on the dorsum of the ilium. The limb was shortened two inches and a half—certainly two inches; the toes were inverted, and the knee drawn above and across that of the opposite side. On the dorsum of the ilium a distinct lump could be felt, which was supposed to have been the head of the femur, which admitted of ready motion. These symptoms being doubtful and obscure, I had a consultation called, in which it was determined, in consequence of the mobility of the limb, a symptom never present in dislocations of the femur, that it was not a case of luxation, but one of fracture through the trochanters. I therefore ordered Boyer's long splint to be applied; but, unfortunately, from the manner in which the extension was made, the injury (pointing to a gash of an inch in depth, and extending across the lower edge of the gluteus muscle round into the groin) which you see here was inflicted, in two or three days after the application of the splint. In a short time after, tetanic symptoms, of a mild kind, came on; there was some slight difficulty of opening the mouth, and of swallowing; the muscles of the neck, arms, and abdomen, became rigid. Whether these symptoms were produced by the original injury is doubtful; but I am inclined to think they were certainly the consequence of the injury inflicted by the bandage. Stimulants, and a full diet were given him, and with some relaxation of the spasm of the muscles; but the nates, as you see, having sloughed, he gradually sunk, and died yesterday during the visit. The state of the bone, which you see here, explains the symptoms, in some respect, observed during life. There is a fracture here of the trochanter major, kept together merely by this thickened capsular membrane, with an ossific deposit of considerable extent around the neck of the femur, and some absorption of the cartilage of the head of the bone, the consequence, I have no doubt, of an inflammation under which he laboured for some time before his admission into the hospital!"

The facts of the case, besides those candidly enumerated by Dr. Hunter, were simply these: along with the dreadful galling in the groin, the skin was completely torn off the instep, by the process of extension. On the removal of the bandages, there was, instead of an inversion, an eversion of the toes. The neck of the femur was almost entirely removed by the interstitial absorption common to diseases of the hip in old men, and its head nearly at a right angle with the shaft of the bone. For the manner in which the bandage was applied, Dr. Hunter is, perhaps, not culpable; but the man being fitted to the splint, as Procrustes accommodated his guests to the length of his bed, by extending some and shortening others, it might be expected that, in a dissection of a highly interesting case, the Doctor would have made some attempt to explain the obscure and contradictory phenomena observed during life, compared with the state of the parts as they appeared after death. But, on this singular demonstration, and the particulars of the cases of fungus hæmatodes and melanosis of the eye, reported in my last, space, at present, does not permit me to offer any further observations.

Scotus.

Edinburgh, March 1, 1828.

ST. THOMAS'S HOSPITAL.

CASE IN WHICH THE OPERATION OF LITHOTOMY WAS PERFORMED A THIRD TIME BY MR. GREEN: FATAL RESULT ON THE FIFTH DAY.

In No. 233 of this Journal, we gave a copious report of a case of stone in the bladder, in which a male patient, 45 years of age, had been twice operated upon by Mr. Green,—in the month of October, 1824, and in the same month 1825. We remarked that he was admitted into the Hospital on the 12th of December, labouring under the most unequivocal symptoms of calculus vesicæ, and that, in fact, the presence of a stone had been satisfactorily ascertained by sounding, but the man's general health was so much affected, Mr. Green had declined performing a third operation.

The report of the case was carried to the 9th of February, at which period the patient was taking an infusion of uva ursi, with soda, and tincture of henbane, at the recommendation of Dr. Prout. An improvement in the health became apparent in the course of a few weeks; there was, however, but little mitigation of the intense pain, and in consequence, the man earnestly intreated Mr. Green to cut into the bladder and remove the calculus. Under these circumstances, the operation was performed on the 7th of March.

There was some difficulty experienced in making the external incision, as well as in cutting into the bladder, owing to the hardened and cicatrised condition of the parts; it was found necessary to enlarge the gorget incision of the neck of the bladder by means of a knife. A large portion of calculus, exceedingly friable, was extracted piecemeal; the whole taken away, amounted, we suppose, to upwards of half an ounce avoirdupois. There were two large pieces amongst the quantity, but the remainder were very minute portions; hence the operation was much protracted, upwards of forty minutes being occupied in its performance.

The quantity of blood lost in the operation, was estimated at about six or eight ounces, and it was principally of a venous character; there was, however, much exhaustion induced, and the state of collapse continued so long, that it was necessary to have recourse to active stimulants, under the use of which reaction was at length brought on. Upon the day after the operation, the only untoward symptom which presented itself was, *occasional hiccup*; to this, however, but little attention was paid, as on both the former occasions, it had come on shortly after the operation, and had continued for some time. On Sunday, the 9th, two days after the operation, the hiccup became more frequent, and was very distressing; there were, in addition, vomiting, and pain at the lower part of the abdomen; the pulse was small and quick. The principal remedial means employed were, fomentations to the abdomen, the exhibition of a purgative enema, and of an assafœtida clyster. The symptoms continued unrelieved throughout the following day, Monday; hiccup and vomiting were almost constant; the pulse was frequent and small; the tenderness of the abdomen, it is particularly worthy of notice, was not general, but confined to the lower part, and was more especially felt along the course of the inguinal canal, on the right side. There was no alleviation of symptoms, and the poor man eventually sunk on the following afternoon. Sinapisms were applied to the pit of the stomach, ammonia given internally, and, on the morning of his death, leeches were applied, but with no effect.

Post-Mortem Examination.

The peritoneum lining the parietes of the abdomen, evinced no traces of inflammation having prevailed, but the small intestines were agglutinated by coagulable lymph. Upon minute inspection, there did not appear to be any preternatural vascularity of the peritoneal coat of the intestines. There was no effusion of serum, or other evidences of acute inflammation; the only morbid appearance, in fact, was the adhesion of the convolutions. The bladder was found to be thickened generally; the mucous coat, in addition to its thickened condition, presented on its inner surfaces several patches, resulting from the effusion of coagulable lymph, which was readily peeled off; the inner coat too, generally, was far more vascular than natural; there were two or three small fragments of calculus in the bladder. The kidneys were pale and flaccid, and upon making a section of each there was observed, amongst the outer part of the cortical substance, a kind of fatty substance—this more especially predominated in the left kidney; the remainder of the structure was healthy: the prostate gland was not much enlarged, but was of almost cartilaginous hardness; the vasa deferentia were thickened, and the vesiculæ seminales contained a portion of calcareous matter. The wound presented a sloughy appearance throughout: in enumerating the symptoms during life, we omitted to state, that such was its appearance then; there was, however, no interruption to the flow of urine.

OPERATION OF LITHOTOMY ON A CHILD.

Mr. Green, on the same day with the preceding case, removed a calculus from the bladder of a child, about two years of age. The "dark and dismal" gorget was employed; there were no particular circumstances attendant upon the operation, and the patient is doing well. The stone extracted was of the size of a horse-bean; it is, we believe, the first instance in which Mr. Green has operated at so early an age as two years.

The fatal result of the first case has excited much attention in the Borough, from the circumstance of its being the only instance of such an occurrence with Mr. Green; this gentleman, as we before stated, having operated upon upwards of forty patients, of various ages, without losing a single case.*

ST. BARTHOLOMEW'S HOSPITAL.

ENLARGEMENT OF THE LIVER AND SPLEEN, WITH SOME REMARKABLE APPEARANCES OF THE BLOOD.

Richard Marshall, æt. 27, was admitted into Henry's Ward, Oct. 4, 1827, under the care of Mr. Lawrence. This patient, who is a blacksmith, and a man of spare habit, has led a temperate life, and till twelve months since, has enjoyed good health. About this time, he was kicked by a horse in the left side of the abdomen; it was followed by excruciating pain, and an unusual fulness was observed near the navel on the right side, a few days afterwards; he also noticed blood in his stools. He was obliged to keep his bed for a week, was bled, and took some medicines. Since that time his health has been much disturbed, and his bowels have been very irregular. The tumour has continued to increase in size. Six weeks ago, he was again struck in the abdomen; this gave him so much pain, that he was obliged to leave off his employment. He voided a considerable quantity of coagulated blood per anum, and a tumour appeared in the left side of the abdomen, and near the navel. Leeches were applied, and he took medicine, which afforded temporary relief. He has continued to void blood, and the pain and swelling of the tumour on the left side have much increased.

October 4. The abdomen is generally

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* Since a notice to this effect was given in our Journal a few weeks ago, Mr. Green has been twice called to Manchester to operate for lithotomy.

swollen in a slight degree, as if from incipient ascites. A tumour, having a regular surface, hard, and a little painful, is felt in the left side of the abdomen, immediately under the parietes; it extends from the margin of the chest, under which it is continued into the left hypochondrium, to the anterior superior spinous process of the ilium, and occupies the left half of the epigastric region, and the whole of the left lumbar and iliac regions. The bowels are very irregular; fæces of a dark colour, and mixed with blood; urine scanty, and high coloured; pulse weak, and frequent. Loss of flesh is apparent in the limbs. Five grains of pil. hydrarg. every night. Eighteen leeches over the tumour.

15. The pain in the tumour is less, but its size is not diminished. The bowels are very relaxed, and painful on pressure; tongue coated: mouth affected by the pills: discontinue the pills. An effervescing draught, with laudanum every six hours.

26. The pain in the tumour is increased, in other respects he is much the same. Two days ago a tooth was extracted, which was followed by profuse hæmorrhage; about a chamber-pot full of blood was lost, and it was necessary to plug the socket.

30. During the last two or three days, he has been much worse. The bowels are more irritable; the secretions dark and fœtid. The tumour is more painful. He has pain in the head, with a dry and coated tongue, and frequent pulse.

Mist. camph. ℥i;
Liq. ant. tart. ʒss;
Tinct. camph. comp. ʒss, every six hours.

In the evening he fell sick, and vomited. The pulse was weaker, and countenance changed.

31. The patient died this morning.

Examination of the Body nine hours after Death.

On laying open the cavity of the abdomen, the spleen was found enormously enlarged, and occupied the left hypochondriac, lumbar, and iliac regions. Its coats, both on the convex and concave surfaces, were at several points converted into cartilage. The structure of the organ, when cut into, resembled in colour and consistence that of the healthy liver. The splenic artery was of its natural size. The liver was at least twice its natural size; the enlargement being observable more particularly in the right lobe. It had pushed up the diaphragm, increasing considerably on the right cavity of the chest; and it extended downwards four or five inches below the cartilages of the ribs. It was rather light coloured, and of natural consistence. There were disseminated through it universally, as thick as they could be arranged, minute dots, none of them larger than a pin's head, consisting of a soft yellow substance. About half a pint of thick sero-purulent fluid, of a dark yellow colour, was found in the right cavity of the chest. The pleura-costalis was a little thickened and reddened. On the upper surface of the superior lobe of the right lung, was seen a patch of yellow lymph, and the serous membrane covering the lung was slightly thickened and opaque; the lung was compressed by the enlarged liver, and contained but little air. About a spoonful of fluid, of a light yellow colour, was found in the left cavity of the chest. All the four cavities of the heart and adjacent large vessels, were enormously distended with blood, so that the pericardium was quite tense, and could hardly be opened without wounding the heart. This blood, as well as that contained in other parts of the venous and arterial systems, had a very remarkable appearance. It was all coagulated, but the coagulum was of loose texture. It consisted in about equal proportions, of red coagulum and of fibrine, free from red particles; and these were intermixed and adherent to each other as usual. The separate fibrine was soft, opaque, and of a bright light yellow lemon colour: the colour and consistence were much like those of baked custard. The red coagulum was much softer and looser; some portions of it were like the ordinary appearance of the blood after death, but the greater part was of a chocolate brown, and rather dingy colour, with a broken-down appearance, as if the whole had been beaten up with a stick or fork. Much of the yellow coagulum was found in the cavities of the heart and the aorta. The vessels of the brain were gorged with blood, which had exactly the same appearance as that found in the heart; hence some of the large veins seemed as if filled with pus. The substance of the brain was unusually vascular.

A note, which Mr. Lawrence received from Dr. Prout, contained the following remarks on the blood of this patient: "I could not make out to my satisfaction the nature of the acid in the blood, but ascertained that it was neither the muriatic, nor the phosphoric, nor any other *fixed* acid. The custard-looking substance in which the acid property chiefly resided, possessed most of the properties of albumen, of which principle it was undoubtedly a modification. The blood, in all the innumerable instances in which I have before examined it, has been either quite neutral, or most usually a little inclined to alkalescence, and I have never before even heard of *acid* blood, though it may, unknown to me, have been noticed as a white looking substance, very like that in the present specimen, has been described, I understand, as occurring in the blood in diseases of the spleen and liver."

CORRESPONDENCE

Between Mr. Lofty *and* Mr. Gamlen, *relative to some circumstances connected with the late cause of* Macleod *v.* Wakley.

MR. LOFTY TO MR. GAMLEN.

35, King Street, City, 4th March 1828.

Sir,—I refer you to No. 13 of Dr. Macleod's Journal, published on Saturday last, the 1st instant, containing a letter from your client, on the subject of the action recently tried before Lord Tenterden, in which you were concerned for the plaintiff, and myself and Mr. Fairthorne for the defendant.

I address you, because I do not consider your client entitled to any notice from one whom he has attacked, not *eo nomine*, but indirectly and insidiously, and because by you he must have been informed of the interview of the 16th ult., adverted to by his letter. I call on you to avow, that on the evening of the 16th ult., you never solicited me to make any admission of the defendant's being the Editor of the Number of The Lancet, published on that day; and the very first word I heard of that Number having in anywise noticed the then approaching trial, was from the mouths of Mr. Brougham and Mr. Kelly, on the morning of the trial in court.

The attempt made by Mr. Scarlett to avail himself of my admission to put in evidence the Number in question, therefore, very properly failed; and though your client does not think it prudent to repeat what fell from his counsel, I have no objection to do so: Mr. Scarlett, conceiving that you had obtained my consent to the reading in evidence of the Number containing the notice of the trial, finding some objection made by the defendant's counsel to its being put in without proof, said, "I advise you never to take that attorney's admission again;" but on being told, as he vehemently was told by me, that you had never asked, nor solicited me to make the admission, (of which, be it remarked, he did not stand in need for the purposes of this action, but for the purpose only of showing, as he said, the animus of the alleged libel,) he ventured not to repeat his advice to you—advice which I have no hesitation in designating to be as impertinent as it was unjust and illiberal. I shall not trouble myself to notice the other inaccuracies contained in the letter of your client. Suffice it to say, if he had been actuated by motives of impartiality, he might have learned that I refused not to make the admission Mr. Scarlett desired; but Mr. Brougham, having expressly interposed his veto, I did not then feel, *as attorney* for the defendant, authorised to act in opposition to the views of *his advocate*.

The approbation or displeasure of Mr. Scarlett is of as little consequence to me, as the opinion of your client in relation to my conduct of the defence offered to his action; all I desire is to be free from observations, by one or the other, which are inapplicable to me. I claim of you, Sir, professional courtesy, and feel justified in saying, whatever may be the vanity attached to the observation, that the practice of our office yields to none for probity and integrity, and that Mr. Scarlett does not conduct himself as a barrister in a more honourable manner than we do as attornies.

I remain, Sir,
Your obedient Servant,
M. Lofty.

R. Gamlen, Esq.

MR. GAMLEN TO MR. LOFTY.

Macleod v. *Wakley.*

Gray's Inn, 5th March, 1828.

Sir,—In reply to your letter of the 3d instant, requesting an avowal from me that, on the evening of the 16th ult., I did not request you to make any admission of the defendant's being Editor of the Number of The Lancet, published on *that day*, I can have no hesitation in stating, that certainly I did not make such request; and for this reason, that I did not anticipate the editorship would have been denied on the trial, after the correspondence which had passed between us on that subject, and to which I beg to refer you, particularly the letter of our firm to you of the 19th of June last, wherein we require you "to admit the defendant to be the Editor of the weekly publication called The Lancet, so that the plaintiff may not have occasion to prove that fact on the trial of this cause," and our letter of the 20th of the same month, wherein we say, "We have admitted Doctor Macleod to be the Editor of the *London Medical and Physical Journal* to the full extent of such editorship, and we require you to admit the defendant to be the Editor of The Lancet generally, for all the purposes of this action;" in reply to which you say, that as we require an admission that your client is Editor of The Lancet generally, you do not object to go that length, and admit that he is. All I requested of you in the evening of the 16th, was to acknowledge your hand-writing to a formal admission of the editorship which bore date on the 13th ult., and which you readily did. I believe you will find this to be the substance of the evidence I gave on the trial.

I never stated, either to Sir James Scarlett or to Doctor Macleod, that I asked you, on the 16th ult., to admit the defendant to be the Editor of the Number of The Lancet published on that day. On the contrary, before I went into the witness box, I expressly told Sir James Scarlett, that you had not made such an admission on that evening, nor had I asked you for it; and I think, therefore, you must be in error when you state, that Sir James Scarlett conceived I had obtained your consent to the reading in evidence that Number, when he made the personal observation you allude to.

Whether or not, in fairness, you could have been expected to admit the editorship of The Lancet of the 16th ult, I shall not offer an opinion. I have merely stated what was the impression on my mind at the time, and which made me think it unnecessary to require any further admission from you. I was informed by Sir James Scarlett at eleven o'clock on Saturday morning, the 16th ult., that he intended to use the Number of The Lancet, published that morning, in evidence. If, therefore, I had not relied on the admission of the editorship, I did not do my duty to my client, in not being prepared with a witness to prove it, which I could have done without the slightest difficulty.

I am, Sir,

Your most obedient servant,

Robert Gamlen.

M. Lofty, Esq.

MR. LOFTY TO MR. GAMLEN.

35, King Street, City, March 7, 1828.

Sir,—In acknowledging the receipt of your favour of the 5th, containing the avowal required by my letter of the 3d instant, my duty would have been simple enough; but since you have taken a general view of the subject, as far as we are respectively concerned in it, by reference to the correspondence which passed at or about the time of the commencement of the action instituted by your client, I cannot permit the affair to remain altogether unnoticed.

I gave you an admission, that my client was Editor of Number 194 of the work containing the alleged libel; which being deemed unsatisfactory, (and why I know not, since no other Number was declared on,) I then admitted the gentleman whom I represent, to be Editor of the work *generally*. I never contemplated, that an attempt would be made to carry my general admission beyond the day on which it was dated; much less did I expect Mr. Scarlett would try to put in a number of the work published eight months afterwards, and endeavour thereby to prove, that it showed the animus of the alleged libel, though not included in the plaintiff's declaration. I will at once say, had I dreamt of such an attempt being made, I would not have given the general admission; and I should certainly have withheld that of the 13th ult., if I had for a moment supposed it had been intended to carry it farther than the general admission contained in my letter of the 21st of June last.

I will put a suppositious case. Let me assume, then, that I have instructions to institute an action against the publishers of the London Medical and Physical Journal, and with the view of preventing a multiplicity of suits, and of reaching also the really, and not the nominally, offending party, I apply to you to admit that your client is Editor of the Number of the work containing the article complained of. I grant my object is fair in requiring, and yours is equally so in admitting thus far; because I seek only the investigation of the case with the right opponent, and because your client had thus the manliness to meet the consequences of his own act. Let me, however, assume, that I am not contented with this admission, but require of you to go the length of acknowledging that your client *will be* the editor of the London Medical and Physical Journal for a period of eight months to come, or, in other words, that he *will be so* on the day of the trial of the cause in question. I will not insult your understanding by assuming, that I should expect you to consent to my requisition. I will not even suppose a gentleman as conversant as you are, with the principles and practice of your profession, would at all *entertain* my proposition; nor do I think you would so directly infract all the rules of evidence, and so flagrantly commit your client besides.

And yet the case put, falls not one jot short of Mr. Scarlett's attempt to drag into evidence a prospective act, which had nothing whatever to do with the merits or demerits of the particular question to try which the Jury had been empannelled, and upon which alone issue had been joined. As I find, by your favour, that, previously to going into the witness-box, you expressly told Mr. Scarlett I had not consented to admit, and that you had not asked me to consent to admit, my client to be Editor of the Number of The Lancet, published on the 16th ult., I cannot withhold the expression of my astonishment at his conduct, which is, by your explanation, rendered the more inexplicable on his part; that a man of his rank and standing at the bar should avail himself of his privilege as an advocate to give advice, having impertinent relation to an attorney, who is as free from the slightest imputation of any sort derogating from the character of an honourable man as Mr. Scarlett himself, is really so astounding, that I will not trust myself to the farther expression of my utter detestation of such a proceeding.

I am sorry you have declined offering an opinion, whether or not, in fairness, I could have been expected to admit the editorship of the Number of THE LANCET of the 16th ult., as I have no hesitation in saying, I am sure you would have acted as I did, and have declined to make, *as attorney*, an admission which the *counsel* engaged for your client advised to be withheld; such was my situation, and I have yet to learn that, in any stage of this cause, I have acted otherwise than as a strictly honourable attorney ought to have acted.

You will bear in mind, that when I first had the pleasure of seeing you, I most distinctly stated, and you as unequivocally agreed with me in the propriety of my statement, that although the parties litigant were in contest with each other, there was no occasion why you or I should be otherwise than most courteous; satisfied as we were, and expressed ourselves to be, that it was the duty of each of us, as far as we could honourably do so, to protect the interest of his client.

I remain, Sir,
Your most obedient servant,
M. LOFTY.

R. Gamlen, Esq.

SUBJECTS FOR DISSECTION.

To the Editor of THE LANCET.

SIR,—I was certainly much gratified the other day by the presentation of a petition, by the Marquis of Lansdown, praying for an alteration of the law with respect to procuring subjects for dissection. The inadequacy of the modes at present adopted to furnish the requisite supply must be apparent, not only to the members of the profession, but to all who have directed their attention to the subject. So generally, indeed, is this acknowledged, that I shall feel it unnecessary to do more than slightly advert to it. One word on the evils resulting.

The *impolicy* of throwing impediments in the way of students is perceptible at a glance, since it leads them to seek, in foreign schools, those advantages which are denied at home. Its *cruelty* to the community at large is no less evident, since it commits the charge of the general health to persons to whom it has refused the opportunity of gaining the requisite preparatory knowledge, and who are, consequently, obliged to acquire their skill, not *with the assistance* of the law, but *in spite of its opposition*. But not only are *impolicy* and *cruelty* apparent in such measures, they are equally characterised by *injustice* and *absurdity*. In a recent case (Rolfe *v.* Stanley) we have seen unskilful conduct in a surgeon treated with severity; in this instance the decision was perfectly correct, because the gentlemen in question had enjoyed peculiar advantages. But to how many prosecutions will this open the door?* And in cases where the fault lies, not in *neglect of attention*, but *deficiency of knowledge*, in how different a light must we regard them? Where will be the *justice* of the law in expecting from surgeons, that which it precludes them an opportunity to obtain? How manifest will be the *absurdity of punishing*, as a crime, deficiency in medical skill, while *denouncing*, as a crime, the means essential to its acquisition.

That there exists a remedy for these glaring evils was intimated by the Marquis, in the observations with which he accompanied the petition. He stated, that while filling the office of Home Secretary, means of obviating these evils presented themselves; and it is much to be regretted, that he did not retain that office a sufficient time to give effect to his views. It is to be hoped, however, that his successor will feel an equal anxiety on so important a subject.

The evils being thus acknowledged, and the remedy for them allowed to exist, I shall detain you no longer than to observe, that much depends on the members of the profession for the removal of those embarassments under which they labour. Instead of remaining satisfied with a solitary appeal, signed by a solitary individual, petitions should be forwarded from every school in the kingdom, signed by every person attending it. While so much apathy is evinced by those immediately interested, how can we expect activity in others? Were an united effort made by the profession at large, its voice would sound too loudly to be disregarded; and its members are wanting in duty to themselves, if they fail to employ means so manifestly conducive to the end proposed. Let active, unanimous, and persevering efforts be made; and ultimate success is certain. The metropolis should, certainly, set the example; and I should be not a little gratified, were the school in Aldersgate Street to take the lead.

I am, Sir,
Your obedient servant,
MATHETES.

Medical Theatre, Aldersgate-St.

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* Against hospital surgeons!

THE LANCET.

London, Saturday, March 22, 1828.

Mr. Guthrie's method of answering a charge is not without precedent, for the records of jurisprudence furnish abundant examples of similar ingenuity; but it is not the less worthy of admiration, because it lacks the merit of originality. It was stated in The Lancet of the 26th of May, that patients were desired to attend at the Westminster Infirmary on Tuesdays, Thursdays, and Saturdays; and that, though coming from Kilburn, Paddington, Chelsea, and other places in the environs of town, they were frequently obliged to return without the sought advice, as Mr. Guthrie did not arrive until half past twelve, and sometimes not at all, and as there was no efficient house-surgeon to act in his absence. It appears from Dr. Forbes's statement, that on the 26th of May, the date of the paragraph in The Lancet, the hour at which the patients were desired to attend in the printed letter of admission, was *ten o'clock in the morning,* and that on the *very day after* the publication of the paragraph, Mr. Guthrie caused a new ticket of admission to be printed, in which the hours of attendance were *altered,* as far as he was concerned, from *ten* to HALF PAST TWELVE. On the same day on which the paragraph appeared, Mr. Guthrie addressed a letter to The Lancet, indignantly denouncing the statement contained in it, as *an infamous and malignant falsehood,* and declaring, with marvellous intrepidity, that the days of attendance were Tuesdays, Thursdays, and Saturdays, at twelve o'clock. If we compare Mr. Guthrie's assertion in his letter to The Lancet, dated May the 26th, with the printed ticket of admission, as it stood on that day, it would appear that we can draw but one inference from the comparison.

Ticket of Admission, as it stood on the 26th of May.	*Mr. Guthrie's Declaration of the same Date.*
"The patients are desired to attend on Tuesdays, Thursdays, and Saturdays, at ten o'clock in the morning."	"The days of attendance are Tuesdays, Thursdays, and Saturdays, at *twelve o'clock.*"

The conclusion to which we are driven, by comparing Mr. Guthrie's assertion with the fact, seems inevitable; but let the reader mark the ingenuity with which this gentleman took his measures for evading that conclusion. Mr. Guthrie's letter, of the 26th of May, could not appear in The Lancet until the 2d of April; in the meantime, Mr. Guthrie caused a new ticket of admission to be printed, in which the *hours of attendance were altered,* so that the assertion, though at variance with the fact at the time the letter was written, corresponded with the new regulation, at the time the letter appeared in The Lancet. After this, we presume, the smoothest interpretation which Mr. Guthrie's best friend can put upon his conduct, will be, that he is a little poetical in his prose. He has availed himself, they may say, somewhat too freely of the figure *prolepsis*; he has merely stolen a march upon time, and anticipated, by a few days, the completion of an arrangement, which, as it was his full intention to carry it into effect, at the time he wrote the letter, and as it was, in point of fact, subsequently made, he was the more excusable in antedating, for the purposes of his own vindication. What, it may be urged, could be more prompt than the course adopted by Mr. Guthrie, for abating the grievance complained of in The Lancet? What more just and satisfactory, than the train of reasoning which seems to have dictated his defence? The complaint made against him was that, Whereas the patients of the Westminster Infirmary, coming from the variou parts of the environs of London, wer directed to attend at *ten o'clock* in the morning, Mr. Guthrie did not arrive till *half past twelve*, and sometimes not at all. The paragraph containing this statement had no sooner appeared, than Mr. Guthrie took measures for removing the cause of complaint by printing new tickets of admission, in which the hours of attendance were altered. It is true that the alteration was not made at the time Mr. Guthrie declared the statement in question to be an "infamous and malignant falsehood;" but it was made within a week after that time, and what could be more pardonable than a trifling inaccuracy in point of dates, when his object was to vindicate his own character for punctuality, and to fix the stigma of falsehood and malignity on those who called it in question?

We must here, again, beg our readers to bear in mind, that although the TRUTH of the paragraph, which appeared in The Lancet, and which was, in reality, the foundation of the action brought by Mr. Guthrie against us, is indisputably proved by the statement of Dr. Forbes; we might, nevertheless, have failed in establishing its truth, had Mr. Guthrie succeeded in his attempt to suppress the testimony of his own colleague; and that, under those circumstances, a verdict might, and, in all probability, would, have been most unjustly obtained against us.

But there was another statement in the paragraph, which Mr. Guthrie declared to be an "infamous and malignant falsehood;" namely, that in which it was intimated, that there was no efficient house-surgeon to act in Mr. Guthrie's absence. Let us see how Mr. Guthrie answered this part of the paragraph, and let us again compare his answer, with the declaration of his own colleague, whose testimony he failed in attempting to suppress.

Mr. Guthrie.	Dr. Forbes.
"The house-surgeon of the Infirmary, Mr. Tebbs, will have been two years in his office next September."	"This person, who was the *house-pupil* on the 26th of May, on the morning when the paragraph in The Lancet appeared, is for the first time denominated HOUSE-SURGEON by Mr. Guthrie, in his letter of the same date."

Here, again, we find Mr. Guthrie directly contradicted by his own colleague, on a question of *fact*. But the material point, it may be said, was not the *designation*, but the *efficiency*, of Mr. Tebbs. If this person were capable of acting in the absence of Mr. Guthrie, there was no substantial ground of complaint; and it mattered little whethe he were called the house-pupil or the house-surgeon. Be it so; let us hear Mr. Guthrie, then, on the question of *efficiency*, and let us again compare his statement with that of his colleague Dr. Forbes:—

Mr. Guthrie.	Dr. Forbes.
"Mr. Tebbs is better qualified to treat diseases of the eye, than nine-tenths of the surgeons in London."	"Mr. Tebbs had been *rejected once*, if not *twice*, at the College of Surgeons; and, according to Mr. Guthrie's *own confession*, made to Dr. Forbes on the 17th of December, the day previous to the intended trial, is *ignorant of anatomy*."

It appears from Mr. Guthrie's confession of the 17th of December, that his declaration of the 26th of May, "that Mr. Tebbs was better qualified to treat diseases of the eye, than nine-tenths of the surgeons of London," was an insult deliberately offered to the great body of the metropolitan practitioners. That declaration was evidently made with a mental reservation, and it must have been by some such process of reasoning as the following, that Mr. GUTHRIE brought himself to testify to the ability of the house-pupil:—" Mr. Tebbs has been rejected by the College of Surgeons, and I know him to be ignorant of anatomy; but who knows any thing of anatomy, except myself and a few other *pure* surgeons? The great mass of general practitioners, the 'chaff and bran of the profession,' are as ignorant as Mr. Tebbs, and I may, therefore, conscientiously assert, that Mr. Tebbs is better able to treat diseases of the eye, than nine-tenths of the surgeons of London."

The more we reflect on Mr. GUTHRIE's answer to the paragraph in THE LANCET, whether with reference to that portion of it which is founded upon the alteration of the hours of attendance, or in respect to that part of it wherein he appears to bear testimony to the ability of Mr. Tebbs, the more are we inclined to marvel at his ingenuity. If Dr. FORBES's testimony to the truth of the paragraph could have been suppressed, Mr. Guthrie, although perfectly conscious of Mr. Tebb's ignorance, might, nevertheless, have referred to the declaration in which he apparently vouches for his ability, as a triumphant refutation of the passage in which we intimated, that there was no efficient house-surgeon to act in his absence. But Dr. Forbes's statement throws a new light upon the declaration of Mr. GUTHRIE, and enables us to distinguish between its real and its apparent meaning—between that construction of it, which was to make it pass upon the public as a testimonial of Mr. TEBBS's ability, and that less obvious interpretation of it, which was to satisfy the conscientious scruples of Mr. GUTHRIE. Mr. TEBBS had been rejected *once*, if not *twice*, by the College, and was, according to Mr. GUTHRIE's *own confession*, ignorant of anatomy; and yet, by a stroke of sophistry worthy of the best imagined refinements of a similar description, to be found in the provincial letters of PASCAL, Mr. Guthrie testifies to Mr. Tebbs's ability, and establishes the falsehood of the statement in THE LANCET, while, at the same time, he satisfies his own notions of morality, and even indulges his turn for pleasantry by a sly sarcasm upon the great body of the metropolitan practitioners.

Such is the morality of the *pures*; such is the machinery by which, with the aid of a few actions at law, in which, by the suppression of evidence, juries might be kept in the dark as to the real merits of the points at issue, the Bats and Corruptions flattered themselves that they should be able to shake the reputation, and diminish the influence, of THE LANCET.

THE Members of our profession, throughout the kingdom, must have read with satisfaction, the observations which fell from the Marquis of Lansdown, on Monday last, on the presentation of a Petition from a body of surgeons in Worcestershire, praying for a removal of the obstacles which, at present, impede the acquisition of anatomical knowledge. We do not allude so much to the arguments by which the Noble Lord enforced the prayer of the petitioners, for these have been repeatedly urged in medical journals, and are familiar to our readers, as to his remarks on the practicability of remedying the evils of which the petitioners complained. The Noble Lord stated, that during the short time he held the office of Secretary for the Home Department, he had taken considerable pains to investigate this subject, and that the result of his inquiries, was a conviction, that means might be adopted for facilitating the prosecution of anatomical studies, without shocking any of the prejudices which existed with regard to the dissection of human bodies, and without rendering a science, essential to the health and safety of the living, dependent, as it is at present, on a violation of the sanctuaries of the dead. We believe that the plan, which Lord LANSDOWN had in contemplation, was one, which has been frequently discussed and commented upon in the pages of this Journal; and we trust that he has not wholly abandoned his intention of bringing the subject before Parliament in the shape of a distinct motion. If, however, he should decline submitting any proposition to the Legislature, it will be doubly incumbent upon his successor in the Home Department, either to provide a remedy for an evil, which is admitted to be one of great magnitude, or to show, notwithstanding the opinion distinctly given to the contrary by Lord LANSDOWN, that the evil is irremediable.

WE insert, this week, a letter addressed by our attorney, Mr. LOFTY, to Mr. GAMLEN the attorney of Roderick Macleod, in which our readers will find a triumphant refutation of an aspersion which Roderick attempted to cast on one of the most respectable gentlemen in the legal profession. For our own parts, we would have offered no opposition to the production in evidence, of the passage announcing the "scarification" of the YELLOW GOTH, for what must have been the *gravamen* of a charge, which required the support of a squib of this description, by way of make-weight to Roderick's supplication for heavy damages. Our Counsel thought differently, and the squib was not technically admitted as evidence; but the reading of it by Roderick's Counsel, was more than equivalent to its admission in evidence, supposing it not to have been objected to, but laughed at as a make-weight; and yet what was the amount of damages obtained by poor Roderick, even when his Counsel had made all, and more than he ought to have made of this squib, in aggravation of the alleged libel? It is unnecessary to make any comment on the absurdity of supposing that our admission of editorship extended, in point of law, or fact, beyond the period at which the admission was originally made. How can a journalist agree to admit editorship, not only up to a given time, but for a *future* period? and yet this absurd supposition is the sole foundation of Roderick's aspersion on the character of a highly respectable professional gentleman!

IMPORTANT DISCOVERY.

IT is confidently asserted that two distinguished philosophers, operating in concert, have ultimately succeeded in contriving an instrument that is capable of detecting the secret operations of the mind by auscultation; and which, in their perverted knowledge of the Greek, they have termed an intellectual stethoscope. The complicated construction of this instrument has not yet been developed; but we learn that some trials are shortly to be made of its stupendous effects, at a Sunday evening medical conversazione. Thought is either the silent inhabitant of the brain, or becomes promulgated by language, which renders it intelligible. This is sufficiently obvious; but the aim of the intellectual stethoscope is to seize the thought in its nidus, either at the instant it is hatched, or before it becomes fledged by speech, and wings its vibrations on the ear. There is a vulgar phrase, that a man endeavours to suck his neighbour's brains; but this was always effected through the medium of verbal articulation,—by picking up a hint, draining an allusion, insidious cross-examination, or precipitating an inference. Here the operator goes directly to work, and elicits the naked thought unencumbered with the meretricious ornaments of language. The first application of this wonderful contrivance was to persons asleep, by which these philosophers, by auscultation, were enabled to detect those whisperings of thought that constitute dreams, and after numerous experiments they are fully satisfied that the majority of persons are much more rational, and pregnant with important discoveries, when asleep, than in their waking moments ; and they have piously presumed that Daniel must have employed a similar instrument when he related to Nebuchadnezzar the dream which that monarch had forgotten. This process of somniloquent extraction, it is rumoured, they first practised on their fair spouses, or occasional sleeping partners ; but the information thus obtained soon induced them to discontinue these attempts on the ladies. The intelligence procured was frequently of an alarming nature, and excited jealousies and apprehensions of infidelity.

In the next instance, they began to practise on each other with their eyes open, but the materials were deficient for a fair experiment. The brain of neither had ever conceived an original thought, launched forth a sally of wit, or courted a candid or legitimate conclusion. In this mutual barter of opinion, the old adage, that exchange is no robbery, was completely verified : after repeated trials they only extracted improbable conjectures, mutilated assumptions, the coarse materials of lying and slandering, envy, hatred, malice and all uncharitableness. Thus the native barrenness of both will compel them to wriggle into medical societies, professional conversazioni, and, if the intrusion be permitted, into the company of gentlemen, that they may glean the thoughts of others, and unblushingly appropriate them as the emanations of their own genius.

The contrivers of this instrument are said to be a Dr. James Johnson, the fabricator and vender of some splintered fasciculi, and a Gothic Editor, the last of the gazetteers.

DR. BLUNDELL'S SUCCESSFUL CASE OF EXTIRPATION OF THE UTERUS.

In reference to this singularly bold and determined measure, Dr. Elliotson has the following note in his translation of Blumenbach, just issued from the press—" I cannot deny myself the gratification of stating, that I have witnessed the complete extirpation of a scirrhous and ulcerated uterus, fundus, cervix and os, through the vagina, by Dr. Blundell, without injury of any neighbouring organ, hæmorrhage, or the least unpleasant circumstance, either during or after the operation ; and that the patient is now, at the end of three weeks, *perfectly well.*"

Surgical Observations on the Treatment of Chronic Inflammation in various Structures, particularly as exemplified in the Diseases of the Joints. By John Scott, Esq., Surgeon to the London Ophthalmic Infirmary, &c. pp. 291. 8vo. 1828. Longman.

This work, considered abstractedly, is almost beneath criticism ; but, when reviewed as the production of the son of the notorious "Scott of Bromley," and of a young man who has just been appointed to fill two important medical offices, it obtains a degree of importance which it could otherwise never have acquired. Whether the work be regarded as an exposition of the professional knowledge of the father, or of the surgical abilities of the son, it is in either case equally unsatisfactory. Its chief features will be found in the following extracts, in which there is nothing valuable that has the slightest claim to novelty.

"*Mechanical support.*"

"With regard," says our author, "to the method of fulfilling this indication, the emplastrum plumbi, P. L., spread on calico, is the best application, as it does not irritate the skin. It is most conveniently made use of when cut into slips of fifteen inches in length by two in breadth. The foot being placed at a right angle to the leg, one of the slips should be applied from the first bone of the great toe, along the inner edge of the foot, around the posterior part of the os calcis to the first bone of the little toe ; the middle of another slip should then be placed under the bottom of the os calcis, and its ends extended perpendicularly up on each side of the leg; the third is to be applied along the foot, parallel to the first, and overlapping the half of it; the fourth should be placed parallel to the second, overlapping the half of it, and extending perpendicularly up the sides of the leg. In this manner they should be applied alternately along the foot, and up the leg, the one holding and, as it were, antagonising the other in the motions of the foot, until the whole limb is covered from the toes to the knee. Subsequently to this, a calico bandage is applied in the usual manner, first alternately around the foot and ancle, and then up the leg as high as the knee. It is necessary to be particularly careful, that the plasters and bandage be applied in such a manner that their superior and inferior edges are accurately placed in apposition to the skin, otherwise they will exert an unequal pressure, which is highly injurious. The whole should be applied with only that degree of tightness which is perfectly agreeable to the feelings of the patient, and not with a view of compressing the parts into a smaller space. In this manner every vessel in the limb will be uniformly and effectually supported.

"In respect to the time at which it will be necessary to renew the applications, that must be regulated by the quantity of the discharge; for, when applied in the manner that has been described, they will remain for weeks, or even for months, without altering their position in the least.

"By adopting this mode of treatment, an ulcer on the lower extremity is placed precisely under the same circumstances in respect to the circulation, as one that has its seat on the trunk, or on the upper extremity, and will heal with equal facility."

Before entering on the consideration of the plan of treatment in affections of the joints, the author hazards some observations on the pathology of those diseases, as well as on the constitutional treatment necessary to be pursued. Mr. Scott is in no way an advocate for the counter irritants in common use, as blisters, issues, and moxa.

"The above-mentioned irritating, and sometimes very mischievous remedies, may be all superseded by the following treatment. In the first place, the surface of the joint, suppose the knee, is to be carefully cleansed by a sponge, soft brown soap and warm water, and then thoroughly dried; next, this surface is to be rubbed by a sponge soaked in camphorated spirit of wine, and this is continued a minute or two, until it begins to feel warm, smarts somewhat, and looks red. It is now covered with a soft cerate made with equal parts of the ceratum saponis and the unguentum hydrargyri fortius, cum camphorâ. This is thickly spread on large square pieces of lint, and applied entirely around the joint, extending for at least six inches above and below the point at which the condyles of the femur are opposed to the head of the tibia; over this, to the same extent, the limb is to be uniformly supported by strips of calico, spread with the emplastrum plumbi of the London Pharmacopœia. These strips are about one inch and a half broad, and vary in length; some are fifteen inches, others a foot, others half these two lengths, and the shorter or longer are selected according to the size of the part round which they are to be applied. This is the only difficult part of the process. This adhesive bandage ought to be so applied as to preclude the motion of the joint, prevent the feeble coats of the blood-vessels from being distended by the gravitation of their contents in the erect posture, and thereby promote their contraction. Over this adhesive bandage, thus applied, comes an additional covering of emplastrum saponis, spread on thick leather, and cut into four broad pieces, one for the front, the other for the back, the two others for the sides of the joint. Lastly, the whole is secured by means of a calico bandage, which is put on very gently, and rather for the purpose of securing the plaster, and giving greater thickness and security to the whole, than for the purpose of compressing the joint. This is an important point, as otherwise an application, which almost invariably affords security and ease, may occasion pain, with all its attendant mischief.

In some cases, in which the skin is thick and indolent, sufficient irritation will scarcely be excited by the above applications, and this may be promoted by rubbing on a small quantity of tartar emetic ointment previously to the application of the cerate. This, however, is rarely necessary.

In some cases, also, it is desirable more effectually to prevent the motion of the limb, particularly in children. This may be done, by applying on each side of the joint, externally to the plasters, a piece of pasteboard, softened by soaking in water, and cut into the length, breadth, and form of splints. These being soft, will accommodate themselves to the figure of the joint, and, when dry, effectually preclude all motion.

I think that this form of splint is infinitely preferable to those that are made of wood. It affords a very firm support to the limb, and at the same time counteracts the contracting effort of the muscles in as great a degree as can be effected without exciting inflammation. I have met with cases, in which the diseased surfaces have been so forcibly compressed, by means of wooden splints, as to excite inflammation, and thereby cause a more violent contracting effort of the muscles, the resistance of which has aggravated the disease.

The remedies thus applied will not require very frequent removal. The time during which they may be left undisturbed, will depend chiefly on the necessity for a repetition of the bleeding, in which we must be guided by the degree of pain, or, when there are open abscesses, by the quantity of the discharge. Should neither of these influence the question, the only necessity for removing the dressings will arise from their having ceased to keep up any irritation in the skin. In some cases it will be necessary to re-apply them every week; in the generality of instances they may be allowed to remain a fortnight, and in others for a longer time. Even where there are open wounds, I allow them to remain several days, or a week, being firmly convinced by experience that the presence of the matter does less harm than the frequent disturbance of the part. A strumous ulcer can scarcely be disturbed too seldom; nothing does so much harm as officious dressing and probing."

We have not space on this occasion for further extracts or comments.

SKETCHES

OF THE

MEDICAL SCHOOLS OF SCOTLAND.

No. VIII.

DR. HAMILTON, JUN.

WHATEVER pupil, at the commencement of a medical session in Edinburgh, should be visited by any misgivings of being incapacitated by that fiend of solitude—melancholy, for the accomplishment of those studious resolutions which usually crystallise, "the genial current of the soul" about the first hard frost in November, let him, the moment he matriculates, pass over to St. Andrew's Square, and take out a ticket of admission to the obstetrical lectures of Dr. Hamilton, jun. If not a very prodigal in pleasure, one hour of rational recreation should be quite sufficient to leaven the monotony of the other ten, daily devoted to his present pursuits; and, by purchasing a policy at that insurance-office of fun, this necessary modicum of amusement is as certainly secured to him through the winter, as if he had received a draft on sight for its liquidation from Comus, Thalia, & Co., and indorsed by that chief cashier of the mythological firm of merriment—Momus. With this amulet in his pocket against the evils of science and seclusion, he may, on his return through Shakspeare Square, render up, without regret, all recollections of Murray and Mackay; glide by the "Rainbow," without heaving one sigh for the glorious nights spent in that retreat of studious dissipation, and enter his lonely chambers, forgetful of the comforts and companions of his paternal roof. In the miscellaneous entertainment to which he has just acquired a right of attendance, he will find a substitute for all his relinquished enjoyments, and, while separated from the distractions of the world, may smile and moralise over one of its most singular exhibitions, as represented in the theatre of midwifery by his new preceptor. Compared with his performances, the exaggerations of the caricaturist, the parodies of the comedian, and the moralist's deepest dissections of human nature, are but "stale, flat, and unprofitable" realities; and the innovations which they excite, but feeble approximations to those produced by the delineations of this "Matthews" of the lecture-room. By an art of critical condensation, peculiar to himself, almost every topic in life and literature, in science and scandal, are compressed into his didactic monologue, himself, however, constituting by far the most interesting feature of the scene. Taken, in short, in any point of view, in front or profile, in mind or manner, he presents a combination of personal and intellectual qualities not to be found, perhaps, united in any other individual of the age; but, in order to appreciate their variety and eccentricity, the great original himself should be seen for a whole season, or reduced into a series of portraits, like an "illustrative Shakespeare," for no single likeness could comprehend his multifarious characteristics. Invested with so many and contradictory attributes, it is not without some diffidence that I attempt to introduce the reader to a nearer view of this sarcastic, sophistical, self-sufficient little personage, in the discharge of his official duties in the University of Edinburgh.

Placed, however, in an atmosphere in which, from the close and crowded state of the apartment, Mr. Lizars might safely proceed to the operation of gastrotomy, without consulting the thermometer, you will not be long detained in suspense for the object of your curiosity, the doctor, as in all other matters, being scrupulous in the fulfilment of his engagements to his class. As the college bell, therefore, tolls three, you will be generally admonished of his approach by a preparatory puff, as he crosses his museum to the theatre, into which he momentarily hurries, manifesting all the distressing signs of an ascent of some three or four flights of stairs, on a slightly asthmatic pair of lungs, and a mind in a state of literary parturiency. Impatient of breath, and to be delivered of his conceptions, his diminutive stature, swelling beyond his natural dimensions, is lost sight of in the bustling importance of his movements, as small bodies, when violently agitated, assume, by an optical illusion, a deceptive magnitude. In this enlarged outline of his own creating, he moves on, his plump, well-formed little "understandings" twinkling in the lustre of black silk hose; and one shoulder projected some inches out of horizontal parallelism with its fellow, borne down by the united weight of some half dozen of volumes under his arm, and the honours of British midwifery, of which he considers himself the only living Atlas. He quickly, however, relieves himself from the painful burthen of both: the volumes, the choicest, perhaps, on the art, are hurled on the table in contemptuous confusion, prophetic of the treatment which they are immediately to experience, and of the high respect in which he holds the labours of English obstetricians. While William Hunter and his successors are tossed about in sad disorder, the toes of the spectators, sympathetically affected (as Professor Allison would explain the phenomenon) by the doctor's locomotive agility, tremble into what has been technically called a "ruff" in the class-rooms of Edinburgh; but, too humble of heart to receive any personal marks of applause, he waves his hand in token of grateful disapprobation, and raising his chair by the back, dashes it against the floor, as if crushing the head of some devoted author, marked out for the day's sacrifice.

Adjusted, at length, in his seat, after a series of evolutions, in which the future parts of the performance are accurately prefigured, his temporary quiescence will now afford you an opportunity of examining more minutely his appearance. And, first, you may be strangely puzzled to determine whether he wears his own hair or a wig—at least I have; for, after viewing it for hours, unmindful of the "quirks and quiddities" of the vectis and the forceps, through every modification of the opera glass, I was compelled to come, in the end, to the perhaps paradoxical conclusion, that it was originally a peruke, but by some process or other unknown, ultimately became incorporated with the doctor's pericranium.—Whether natural or artificial, or both, according to my humble judgment, no object of the kind, not excepting Dr. Parr's celebrated wig, ever attracted more attention; for, if you observe the eyes of the class at any given moment in the course of the lecture, you will find them invariably fixed on the phenomenon, and I have known pupils so deeply impressed with its mysterious character as to become hectic of its investigation. Composed of the finest materials, and inclining to the national tint, it obviously becomes the wearer; participates in all the mental processes performed beneath its shade; and terminating in front, in a peculiar projection of curls, communicates a matron-like appearance of fifty to his physiognomy, as beseems a pathological confidant of the "fair sex." It is probable, indeed, that in its cultivation he might have had in view the double object, of fixing the attention of his class during lecture, and of softening the bolder lines of manhood down to the point of tolerance by female delicacy. The harmony of personal appearance and professional pursuits was never more perfectly proved; and, in contemplating the contour of the profusion of curls, the smooth, skinny, depilated countenance, and the gown drawn closely round his shoulders, it is almost impossible but the masculine effeminacy of the bust before you will conjure up in the mind an imaginary portrait of his persecuted rival, Madame La Chapelle, haranguing a conclave of students, and attired in a wig, professor's robe, and a pair of French breeches. The more striking features of the face are, perhaps, still more expressive of that philosophy (a mixture of the tenets of the Cynics and the Pyrrhonists, with a strong dash of the gossip of the midwife,) which he professes in its utmost extent. The forehead hard, narrow, and wedge-like, is admirably adapted for the splitting asunder of complex problems and knotty opponents; the eyes small, keen, and dark, twinkle in their sockets, like the points of one of Mr. Thomas Moore s epigrams; the nose, gently inflated and turned up, would seem designed for the purpose of detecting tainted topics at a distance, and suspending them for public ridicule; the lips, moist and flexible, might be taken for the matrix of those ascetic insinuations which they daily deliver; while the curls of the wig, (?) rising over either temple, look like the horns of a dilemma, ready to toss between them the victims of his controversial propensities.

Apparently unconscious of the qualities which he is about to display, for it is one of his traits to seem quite insensible to the critical ravages which he commits, he proceeds, in a low tone of voice, to read from his manuscript a recapitulation perhaps of the preceding day's lecture; but evincing more energy as he advances, he at length comes to some disputed point, and throwing a sly glance at one or other of the volumes before him, immediately lays hold of the culprit marked by cat-ears for immolation, and at once diverges into one of his usual acrimonious digressions. His manner of conducting these specimens of special pleading has, perhaps, no parallel in the effusions of Machiavel or John Dennis. Its ingenuity is not surpassed by the wily Italian, or its satire by the indiscriminate sarcasms of the British Zoilus. The audience is generally forewarned of these logical conflicts by an appeal to "his experience," accompanied by a spasm of the zygomatic muscles of one side, with a corresponding contraction of the external canthus, which Mr. Charles Bell might take for the model of a leer, in his anatomy of the passions. The attack is next softened by some trite compliment to the character of the author, and the preparatory steps of the process wound up by remarking, that it is always dangerous to overstate the arguments of an opponent, or to attempt to ridicule his positions by forced conclusions. If not in the secret of the sequel, you could never suppose but these preliminaries would lead to the most unbiassed judgment; but you will soon perceive that the Doctor, like the sacerdotal butchers of a Roman temple, was merely gilding the horns with one hand, while he sharpened the knife with the other, that the victim might fall with more grace and security. The preparation for death being thus made as easy and as certain as possible to the author, his phrases are next examined with the exactness of a Dutch commentator; his reasoning contrasted with contradictory facts; principle, precedent, probability, are brought to bear on his deductions, until borne down by every artifice which ingenuity could suggest, his book, just as the final knot in the process of critical strangulation is tied, is thrown aside with an expression of victorious satisfaction, and a contemptuous jerk of the arm. Success, however, does not always attend his disquisitions, nor a smile of triumph irradiate his brow. Should the assailed opinion, which not unfrequently happens, brave his opposition, his temper forsakes him, his lip quivers, his cheek becomes pale, the eye flashes as the contest goes against him, physical force is called to the aid of baffled intellect, and after a fruitless effort to carry the conviction of the audience along with him, the idea of failure seizes on his imagination, and rushing through all the barriers of facts, reason, and arguments, concludes abruptly, by the enunciation of an unqualified dogma amidst the general laughter of the class.

Such scenes constitute the daily staple of his prelections: to witness the perfection of his manner, you should be present at that part of the course, in which French midwifery, medico-legal obstetrics, and Mr. Lizars' operations for ovarian dropsy, are discussed. These are certainly the subjects which elicit the peculiarities of his talent, in their most remarkable form; but particularly France, for which he entertains a thorough bred English contempt. Its manners, morals, politics, and religion, afford him inexhaustible themes of censorious remark: its midwifery is his aversion, which, by some unaccountable caprice of his passion for satire, he identifies with the compositions of La Chapelle. I have been at considerable pains to ascertain the cause of his inveterate antipathy to this extraordinary lady, but have completely failed in the investigation. His right hand man, Johnny Wilson, suspects that she did not make the tea strong enough for the Doctor's palate, during his visit to Paris. I think it more probable, that she incurred the Doctor's hostility, by exercising one of his own peculiarities against his awful pronunciation of the French language; or, that discovering, during their social converse, a moral and professional resemblance between them, he continues to pine under that feeling of rivalry, which one beauty entertains towards another. At all events, her name awakens all his sense of moral and scientific propriety; and is, in general, the herald of his most extravagant specimens of logical vituperation. It may be readily perceived, by his appearance, when he intends to make a more than ordinary assault on this unoffending lady. Johnny Wilson bears before him in awful solemnity, that fearful instrument of female destruction, the long French forceps. His intentions are graphically portrayed in the indignant energy of his motions, and an expression of Lilliputian heroism is depicted in his countenance. The cornua of the wig, (?) emblematic of battle, project over the forehead in a more crispy luxuriance of curl; and, in a tone of voice indicative of the approaching storm, he entreats the particular attention of the class to the subject of that day's discussion. The idea of a woman attempting instrumental operations, is first whiffed off in one of his choicest sarcasms, with a smacking sound of the lips, like that of carbonic acid from a bottle of soda. Mechanics are exhausted in a condemnatory explanation of the mortal properties of long levers, backed by the evidence of a melancholy catalogue of lacerated perinea, extracted from the records of the Maternity at Paris; the death of thousands of mangled females is laid to the charge of the destructive weapon and the ignorance of the practitioner, and contrasted, in an appeal to national vanity, on the comparative safety and glory of British midwifery; while, as these frightful details and patriotic emotions are working his features into fury, his hand may be seen instinctively moving towards the long forceps, and, holding it up at full length, with an expression of horror lets it fall dramatically on the table, with a clank of conviction responded to by the ungovernable laughter of the class.

Allowing for a natural tendency to hypercriticism, much of the Doctor's superiority in that species of it which he practises, may be attributed to education. While yet a boy, as he tells the story by snatches in his lectures, and intended to succeed his father in the chair of midwifery, he necessarily came into continual contact with a class of persons famed in all countries for their proficiency in the dissection of human character. His habits of thought and manner seem to have been assimilated by association with those of the "Candours" and "Sneerwells," in that most accomplished of all "Schools for Scandal," the chamber of a lying-in lady. Though they obviously made a deep impression, they could not entirely unsex his mind. Retaining its natural superiority, and deeply imbued with the attributes of female gossip, and exercised on objects of importance, it presents those specimens of gigantic vituperation which distinguish his prelections. The tuition which perfected him in this species of attainment, conferred on him the more substantial advantage of professional excellence, and may have been the cause of many of the events which have distinguished his life. Having been appointed, on the abdication of his father, to the professorship of midwifery and being refused repeatedly by the Senatus Academicus to have his tickets made an indispensible part of the curriculum, he turned his talents against them with the utmost success. A war of scandal ensued between the parties, such as was never witnessed before in college or conventicle. Mutual recrimination ultimately led to an appeal to the law; and a series of libel actions and the present royal commission, were consequences of the conflict. The Doctor, however, was not to be outdone at the use of weapons with which habit had rendered him familiar. Eminently gifted with that kind of eloquence, which can make the worse appear the better reason, and supported by female influence, he transferred the adjudication of his claims from the College to the City Chambers, and assailed the town council through the Press, and the curtain-lectures of their fair spouses. Supported by such irresistible power, and also of the best pamphleteers in Edinburgh, a merit of no mean order in a city where all public business, from the scavenging a sewer to the revival of a Parthenon, is regularly discussed in a series of these productions, he prevailed with the Town Council, and had himself elevated to the dignity of a professor of medicine, and his tickets made necessary to graduation. On the Doctor's part, the war with the Senatus is still continued; and his very enunciation of the word in the course of his lectures, might be assumed as a standard model of the bitterest scoff.

Were I to estimate his knowledge and abilities by popular feeling, I should vastly underrate both. The generality of students have, in this respect, been deceived by the mist of critical absurdities, with which the valuable instruction of his lectures has been overlaid; and their opinion of his intellect lessened by the degrading censure in which he perpetually indulges. This, though a natural error under the circumstances, is no less erroneous. He possesses talent far beyond that for which he has credit; and experience in his own department, unprecedented, perhaps, in any practitioner of his country, having established a sort of prescriptive right to the whole petticoat pathology of Scotland. There is no form of female complaint, mental, or corporeal, with which he is not familiarly acquainted; nor any obstetrical phenomena in books or practice, which have not come under his observation. His lectures consequently contain a vast fund of instruction; and had not those of Dr. Blundell appeared, I should have presumed Dr. Hamilton's to have been the best delivered in Britain. Their utility to the student is much enhanced by the extent of his museum, and of his collection of obstetrical instruments; in which are contained every vagary of Nature in the process of generation, and of art, in the invention of apparatus for their management; from the simplicity of the wooden spoon down to the last French pelvimeter. But, faithful to the ruling passion, science itself is made subservient to its gratification; and in detailing the most useful and necessary parts of the course, his love of subtlety, satire, and disputation, never forsakes him. The simplest precept is buried beneath a mass of commentary and erudition, and clogged with so many exceptions and provisions, that its use is half destroyed. Just as you imagine you have some tangible rule for your direction in a given case, the spirit of scepticism seizes on his imagination, and he doubts, refines, subtilises, sophisticates, until, having circumvallated your judgment by a barrier of difficulties, he leaves you the consolatory option of believing that the precept is impracticable, or only to be attempted by one possessed of the Doctor's own dexterity and experience. Any pupil, indeed, who, after witnessing his legerdemain manipulations of the forceps, or hearing his description of the tact required in the operation of turning, and would attempt either, must be endued with the supernatural sagacity and infallible perception of the Doctor himself. To sophisticate every proposition, however, is his delight; seeming more intent on inspiring in the pupil's mind an exaggerated idea of difficulty, than a scientific confidence in the application of the rules of the art. Deeming it of equal importance to point out what is to be avoided, as that which is to be pursued, and making no selection in the choice of negative examples, his lectures contain, perhaps, the greatest number of errors and absurdities ever gleaned together by the industry of one individual. The age or folly of a doctrine or practice, affords either no protection from refutation. The greater the absurdity, the more acceptable to the Doctor; it affords scope for sarcasm and disputation, and that is quite sufficient to entitle it to his attention. In composing his discourses, he seems to have raked the Lethe of medical literature from end to end, for the abandoned abortions of the human brain, and to find the most exquisite gratification in gloating over the worthlessness and deformity of this vast Golgotha of blighted speculations.

From this conservatory of dead error, he makes excursions into the regions of the living; and, while overturning a theory of the last century, never forgets the aberrations of his contemporaries, whether great or small. His engine of attack, like the proboscis of the elephant, can accommodate itself to the destruction of the meanest insect, while wreathed round the stubborn oak. The by-play of his satire, during one of these sallies of scientific vituperation, is exquisite. While his eye sparkles, and his voice is strained to the highest pitch in the denunciation of some obsolete doctrine, he can compose the one into an expression of calm contempt, and modulate the other to the gentle undertone of an inuendo, in a style more significant to the spectator, than the louder voice of vulgar detraction. The occasions for the exercise of this species of comment, are far too numerous for specification. One may suffice to give an idea of the whole. Thus, in one of his philippics against certain physiological theories deduced from acephalous monsters, in the whirlwind of his assault, he calmly observes that, "he had a preparation demonstrative of the truth of his opinions; but, having lent it Dr. Monro, it forgot to return." The class of course appreciating his meaning to its full extent, give audible proofs of their perception of the hit; which the Doctor perceiving, assures them with a look still more expressive of his intention, that he meant nothing improper; that the preparation may have been lost, but that he never got it back. In the most rapid transitions of argumentative aggression, and combination of logical expedients to overwhelm an opponent, he thus contrives to diversify the combat by casual allusions to his colleagues and contemporaries; and it is a mere chance whether the character of an individual or an empire, is disposed of in one of these colloquial parentheses, or episodes of physiognomical expression.

Scotus.

Edinburgh, March 15, 1828.

WESTMINSTER MEDICAL SOCIETY.

March 15, 1828.

Dr. Barry, in the Chair.

DISCUSSION ON HERNIA.

Mr. Cæsar Hawkins entered fully into the "diagnosis of hernia," enumerating various tumours, which, he said, might be mistaken for hernial swellings, both inguinal and crural: he particularly dwelt upon the circumstance of an enlarged absorbent gland being confounded with femoral hernia. In respect to the treatment, nothing material was advanced; Mr. H. recommended having early recourse to the operation, in cases of strangulation. The discussion originated from Dr. Somerville observing that he had witnessed many cases in which the operation had been performed early, and where the patients sunk from "constitutional irritation." In reply to this it was said, that the circumstance of patients thus dying, without any tangible disease, is referrible to idiosyncrasy of constitution, and in nowise affects the principle of operating early.

The principal point, however, which engaged the attention of the Society, was whether there are any symptoms which can be considered unequivocally indicative of strangulation. It was strenuously contended on one side, that the presence of certain symptoms, such as obstinate constipation, vomiting, a frequent pulse, and anxious countenance, taken in connexion with the appearance of a swelling, and bearing in mind the order in which the phenomena occurred—that all these things, in conjunction, rendered the existence of strangulation a matter of certainty. The fact of enlarged absorbent glands having been mistaken for hernial swellings was admitted; but Mr. Mackelcan and Mr. Bennett remarked, that the fault lies not with our means of diagnosis but with the individual, who either neglected to employ them, or was ignorant of their nature. The general symptoms, in themselves, were said to be sufficient to establish the diagnosis of strangulation; that, in fact, the intestine might be strangulated internally, and without any tumour; and that, as a hernial swelling was so varied in its kind, it could merely be regarded as collateral evidence of strangulation.

It was argued, on the other hand, that all the constitutional symptoms enumerated often present themselves in cases where there is no incarceration of intestine; being referrible to inflammation. The opinion of Mr. Lawrence also was quoted in support of the propriety of attending to the local appearances, as *principal* means of diagnosis.

The debate was upon the whole well maintained. A notice was read from the chair that Mr. Wade will bring forward, at the ensuing meeting, a paper on diseases of the heart.

LONDON MEDICAL SOCIETY.

March 17, 1828.

Dr. Haslam, President, in the Chair.

CHARGE OF MISREPRESENTATION.

The Minutes having been read, Mr. Lloyd proceeded, with great warmth, to make some observations on the report of the Society's proceedings, given in this Journal of last week. He affirmed, that as far as he was concerned, the debate was incorrectly stated; he had no objection to the publication of the discussions, but he wished them to be fairly given.

Mr. Lloyd was several times interrupted in his remarks, by members who contended, that the matter of complaint could not legitimately be brought under the cognizance of the Society; the President, however, decided on hearing the subject, considering it better for all parties; and observing, that a power was placed in his hands of regulating the debates.

When Mr. Lloyd had concluded, Mr. Amesbury, Mr. W. Boddy, Mr. Waller, and other members, rose to express their conviction, that the report given in The Lancet precisely agreed with the notes of the Registrar, which had just been read, and stood authorised as the minutes of the Society. It was, in consequence, moved and seconded, that the minutes be again read; this was complied with, and the registrar's account of Mr. Lloyd's observations, was as follows, which we shall take the liberty of antagonising with the report, as contained in this Journal, merely observing, that a singular coincidence exists between the two.

Report of Mr. Lloyd's Speech as inserted in The Lancet *of last Week.*	*Report from the Registrar's Minutes,*
"Mr. Lloyd thought the analogy, in respect to treating ague, did not hold good. Physicians had recourse to the new methods, because the results of the old plan were bad; and this was the case, also, with the healing of stumps; but thus much had not been proved as regards Mr. Amesbury's apparatus, and the means commonly employed. He admitted, however, that he was not present at the description of Mr. Amesbury's apparatus, *nor did he understand its construction*!"	"Mr. Lloyd argued, that the analogy, with respect to the adoption of new remedies and modes of treatment adduced by Mr. Amesbury did not hold good, inasmuch as physicians and surgeons had adopted such measures and modes of treatment, because the previous measures had been decidedly bad and inadequate to the purposes required; but Mr. Amesbury had to prove, that the old mode of treating fractures was inadequate, and he, Mr. Lloyd, had not as yet come to this conclusion; at the same time he admitted, *that he had not seen Mr. Amesbury's apparatus, nor was he acquainted with its construction.*"
"Mr. Lloyd admitted such were the indications necessary to be fulfilled, and that they were effected by the ordinary method. He had followed the plan recommended by Pott with great success; but, in order to prevent the patient from turning round upon his back, he usually tied the opposite hand and leg to the bed. In answer to a question, whether the first indication mentioned by Mr. Amesbury was accomplished, Mr. Lloyd said, that *he* did not believe there was *any* mechanical contrivance by which the ends of the bone could be held together, if the lower part of the limb is moved round, or the body turned."	"Mr. Lloyd said, that the indications mentioned by Mr. Amesbury might be fulfilled, by the ordinary modes of treatment. After some further conversation, as to the position of the patient, Mr. Lloyd stated, that to preserve the proper position of the body, he was accustomed to tie the opposite hand and leg to the bed, but in a manner not likely to inconvenience the patient: he did not know of any contrivance, by which the fractured ends of the bone could be kept in apposition, if the body were turned round, or the limb moved."

After the reading of these minutes, and some observations had fallen from various members, on the close resemblance between the two statements, of the registrar and of THE LANCET, and also confirmatory of their accuracy, the President interposed, and begged to repress any further allusion to this point.

Mr. CALLAWAY denied the statement attributed to him by Mr. Amesbury at the last meeting, namely, that he, (Mr. C.) had *witnessed* the beneficial effects of the fracture apparatus, he had admitted, (as he thought every one must,) its ingenuity, but nothing further. He contended that surgeons *do* succeed in uniting fractures of the thigh by the old methods, and that cases of non-union are very rare. Fractures of the middle and lower third of the femur, he said, were easily managed; but not so with those of the upper third of the bone, to which Mr. Amesbury's apparatus was not applicable. Mr. Amesbury had shown the Society diagrams, and had stated opinions, but had brought forward no cases to prove the superiority of his plan.

Mr. AMESBURY thought that he had an equal right to complain of the report given in THE LANCET, with Mr. Lloyd, for the answers which he had made to Mr. Lloyd's objections were only cursorily stated, so that Mr. Lloyd appeared in the report to have the better of the argument. However, all that could be expected, was the substance of the debates, and, in the most unequivocal manner, he would bear testimony to the accuracy of the report, as far as it went. Nothing had been stated but what had really transpired, and for the truth of this he would appeal to every member who was present at the debate. In answer to Mr. Callaway, Mr. Amesbury observed, that the impression upon his mind was, that Mr. Callaway had stated, he had "*witnessed*" the beneficial effects resulting from the use of the fracture apparatus. It had been repeatedly tried in the Borough Hospitals, where Mr. Callaway at least might have seen the advantages of the treatment. In opposition to the opinion of Mr. Callaway, that fractures of the middle and lower third of the thigh were treated without difficulty, he would ask how it happened, if all things were so smooth and easy in this practice, that not a year passed without communications from different quarters, relative to the difficulties of treating such fractures. He had said, and would repeat the assertion, that even the most simple fracture of the thigh, in which the division of the bone was complete, was not *safely* treated under the use of the ordinary means; that there was danger of non-union in consequence of motion in the fractured ends, which, as he had demonstrated, must of necessity occur, when the old means are employed. But although he admitted that many fractures of the thigh were successfully treated by the common contrivances, yet, where the fracture was oblique, it was notorious that a favourable result very seldom ensued. He had heard Sir A. Cooper state in his lectures, that *he had never seen a case of oblique fracture of the thigh treated without deformity.* And in respect to fractures of the lower third of the thigh occurring just above, or through the condyles, Sir Astley stated, that deformity would be the result, *under any mode of treatment.* In regard to its being made matter of complaint, that he had failed to show by facts the superiority of his plan of treatment, he had not done so from a want of facts, for these he possessed in abundance, but because he had wished to argue upon the principles. He had called upon those who advocated the old methods of treatment, to show that they were capable of fulfilling the indications which were really necessary to cure. The apparatus had not been used simply in cases of non-union, but with an infinite number of recent fractures. He did not recommend it in fractures of the upper third of the thigh, because he considered that the fracture-bed he had invented was a better means. Mr. Amesbury then referred to a case which occurred in Guy's Hospital during the surgeoncy of Mr. Foster; the patient had a very oblique fracture of the femur, about an inch and a half below the trochanter minor, and it could not be kept *in situ* under the use of the ordinary means, yet with Mr. Amesbury's apparatus it united in the space of one month, without deformity.

Mr. KINGDON remarked that, in his own practice he had been successful in the treatment of fractures of the thigh, by the use of the double inclined plane; he thought Mr. A. had gone somewhat too far in his denunciation of all other methods than his own.

Mr. LAMBERT said, that without entering into the merits of the apparatus employed by Mr. AMESBURY, he would assert that the ordinary means of treating fractures of the thigh, looking to the results, were very inefficient; whilst he agreed with Mr. CALLAWAY, that non-union was comparatively rare, yet he would assert that deformity was almost a constant occurrence. He had been closely attendant upon the Borough Hospitals for several years, and he declared that he had not witnessed half a dozen cases of fracture of the thigh, in which the limb was preserved of its proper length. If such were the consequences of the usual modes, then it was high time to abandon them, and to adopt others more efficient.

DIABETES MELLITUS.—CASE OF MR. S——Y.

DR. BARRY AND DR. AYRE.

To the Editor of THE LANCET.

SIR,—At the sitting of the 16th ult. of the Westminster Medical Society, Dr. Ayre introduced the details of this case, which he stated to have been perfectly cured by him by topical bleeding only. This, he said, proved not only the success of the treatment employed, but also the correctness of his conclusions, that diabetes consists in a local disease of the kidneys. As Mr. S. had come under my care in the beginning of January, with decided diabetic symptoms, had continued to follow my directions up to the day of the meeting, and, though much relieved, was not yet cured, I thought it my duty to quit the chair for the purpose of joining in the discussion, and to state to the Society what I knew on the subject, in order to prevent the adoption of hasty impressions.

When at the next meeting of the Society I explained, from documents furnished by Mr. S——y himself, how Dr. Ayre had been misled, and showed that he was warranted in supposing that he had performed a cure of diabetes by cupping on the loins, I did so for the purpose of re-establishing peace and good will amongst all the parties concerned, and for the purpose of placing Dr. Ayre and myself on a proper footing with the Society, on the subject of this case. Finding, however, by Dr. Ayre's letter of the 29th ult. to you, that he will accept of nothing less than the whole merit of the cure, and that he still persists in making this supposed cure, the basis of a theory and a plan of treatment in this most important disease, I feel myself compelled, in my own defence, to request that you will be kind enough to publish the following letter, just received from Mr. S. You will be pleased to give only the initials of his name; the original letter may be referred to in my possession.

Junior United Service Club, Dover Street, London, 11th March, 1828.

Dear Sir,—Having observed in THE LANCET, a publication of the treatment of my disease by Dr. Ayre, and as a full statement of my case may prove serviceable in future diseases of the kind, I beg leave to give you the following explanation, which you are fully at liberty to publish. I have written upon the subject to Dr. Ayre, whose kindness to me was extreme, during the time I was under his care.

Through the suggestion of some intimate friends and relatives, who did not consider my progress towards recovery sufficient, I consulted you, and I feel excessively sorry that I should have been the cause of giving rise to a discussion between you and Dr. Ayre. I take the whole blame to myself, of leading Dr. Ayre to believe that my total recovery had taken place under his care. I did, in the first instance, receive considerable benefit from Dr. Ayre's advice, and motives of delicacy alone prevented me from informing him that I had taken your advice, and was living according to your directions while at Brighton.

The statement published by Dr. Ayre is perfectly correct, up to the 7th of January, except the *radical cure.* I was *not recovered* when I consulted you, but consider myself now as quite cured; and I attribute it to my having implicitly followed your direction of *an exclusively animal diet, the use of vapour baths,* and the other measures which you prescribed.

The discrepancy between the statement of my weight to Dr. Ayre, and that contained in my last letter to you, is accounted for by the effect of my journey to Brighton.

Believe me, dear Sir,
Very faithfully yours,
G. H. S.

To Dr. Barry, M.D.,
26, Welbeck Street.

In justice to Dr. Ayre, for whose talents and acquirements as a physician I entertain the highest respect, I beg leave to add, that Mr. S. was twice cupped on the loins, and once leeched on the ancles, whilst under my care, and that I believe him to have been benefited by these bleedings.

As I have no wish to occupy my own time, nor your columns, by entering into a theoretical discussion on the subject of diabetes, at present, I shall merely observe, that, whether with regard to this, or any other disease, that theory cannot be the best which precludes or dispenses with the use of tried and safe remedies.

I remain, Sir,
Your obedient servant,
D. BARRY.

26, Welbeck Street,
13 March, 1828.

ADVANTAGES OF THE WESTMINSTER HOSPITAL.

To the Editor of THE LANCET.

SIR,—I entirely differ in opinion with those, who deprecate all appeals to the press, in matters of dispute between pupils and their instructors. The tribunal of public opinion is the one best adapted to the unveiling of truth, and the exposure of falsehood. I therefore think, "Discipulus Æsculapii" has done well in THE LANCET of to-day, in stating his grievances to the pub-

public. I rejoice in the occasion it presents me, of acquainting him and some others, (whose spleen may surmount their judgment,) of the opportunities of improvement which are afforded to the surgical pupils of the Westminster Hospital.

Any pupil is at liberty to accompany the House-Surgeon in his daily round at 10 A.M., and to assist in dressing the patients. Any pupil may enter the wards at all times, question any patient he may select, or take notes of any case. Mr. Harding, the assistant surgeon to the Hospital, attends regularly every Tuesday and Friday at half past twelve o'clock, and is ready to give clinical explanations of any, or every case. Mr. W. B. Lynn is equally punctual in his attendance, at the same hour, on Wednesdays and Saturdays. Mr. Lynn, sen., and Sir A. Carlisle, are constant in their visits at the fixed hour on Wednesdays and Saturdays and are willing to impart every instruction, in their power. Mr. White, although his extensive private practice may make him occasionally a little late, bestows more time on the patients, from his frequent intermediate visits at the Hospital, than probably any one of the other surgeons. Of Mr. Guthrie's precision, the pupils have already borne testimony.

But it is in vain to point out these sources of instruction to our modern "Filii Æsculapii," they are not content to work except in a crowd; "*turba ruit*" is with them the "*march of intellect*," and pushing and jostling after Mr. White or Mr. Guthrie, annoying each other as well as the patients, is considered a more efficient mode of study, than the careful and solitary contemplation of disease. To every pupil of this Hospital, sincerely desirous of professional improvement, one word will suffice "CIRCUMSPICE."

Your obedient servant.
WESTMONACHUS.

ABSCESS IN THE FAUCES.

To the Editor of THE LANCET

SIR,—Observing in your review of the Glasgow Medical Journal, a case of obstructed respiration in a child, arising from a tumour in the fauces, the particulars of the following case may not be uninteresting, as it illustrates the plan of treatment subsequently recommended in your Journal. A child, three years of age, had been attacked with a series of fits incident to children from disordered stomach or bowels, which were successfully treated by warm baths, purgatives, &c. To these succeeded an enlargement of the whole chain of glands in the neck, which, on subsiding, ushered in the symptoms as related by Dr. Sym. Great difficulty of breathing, accompanied by a noise resembling that of croup, more particularly when the child attempted to doze or sleep, producing an agonising sense of suffocation, and attended with a copious secretion of frothy mucus. On examination, there were no particular indications of the existence of a tumour; the tonsils, uvula, and fauces, presenting but little appearance of inflammation. Leeches, blisters, emetics, &c., were employed without any alleviation. Deglutition, which at first was not at all affected, now became alarmingly impeded, breathing stertorous, the child gasping for breath, and appearing every moment likely to be suffocated. The suspicion of the existence of an abscess or tumour, became more confirmed. On attempting to pass the finger down the œsophagus, all ambiguity was at an end; a large and elastic tumour was instantly perceptible to the touch, which appeared to be situated on a level with the epiglottis; a gum lancet (a trocar not always being a pocket-case instrument) was directed by the finger, and from two to three ounces of pus let out. The result was most favourable, the child being now perfectly convalescent.

I am, Sir,
Your obedient servant,
R. J. CULVERWELL.

Islington, Feb. 16.

ST. THOMAS'S HOSPITAL.

ADHERENT EPIPLOCELE, WITH SUBSEQUENT DESCENT AND STRANGULATION OF THE SMALL INTESTINE.

Operation by Mr. Tyrrell, twenty hours after the Strangulation—Division of the old Adhesions of the Omentum, and return of the Prolapsed Mass into the Abdomen.

ELIZA CANFIELD, twenty-eight years of age, and healthy in appearance, was admitted into Dorcas Ward, under the care of Mr. Tyrrell, on the 6th of March, at noon. The account which she gave was, that she had had a rupture for the last seven years, that it was produced by violent exertion, and was always reducible until the present descent, which took place on the evening of the fifth. She had worn a truss for some time, but being of an imperfect kind, she had obtained but little benefit from it.

When admitted, there was a tumour of about the size of a hen's egg in the situation, and presenting the usual characteristics of, femoral hernia; it was tense, somewhat tender, and there was an obscure sense of fluctuation at the lower part. The taxis had been employed on the morning of admission, and also blood-letting from the arm. The pulse was, at the time of admission, quick and sharp; the abdomen was free from tenderness; there was no hiccup, or anxiety of countenance.

Under the direction of the dresser, Mr Park, she was again put in the warm bath, the taxis used, and blood taken from the arm, but without effect; and, in consequence, Mr. Tyrrell was sent for, who proceeded without delay to the performance of the

Operation.

The inverted T incision was made through the integuments,* the different coverings carefully divided, and the sac laid open. Its contents proved to be a small knuckle, or fold of intestine, covered by a large portion of omentum; the veins of the latter were much distended with dark blood, but the intestine itself was only slightly discoloured. Having effected the division of the stricture, which was at Poupart's ligament, the intestine was returned without difficulty; but upon attempting to replace the omentum, it was found to be closely coherent with the sac, the adhesions evidently being of long standing; they were carefully divided, and the whole of the protruded mass was then readily reduced. The wound was dressed in the usual manner, and the patient put to bed; she did not experience any marked relief from the operation.

In the evening an enema was exhibited with castor oil, which produced one evacuation; as she complained of much pain in the pubic region, and had not passed urine for several hours, the catheter was introduced, and a large quantity drawn off.

7. Complaining of pain in the abdomen; the pulse is moderate; tongue slightly furred; bowels relieved thrice since the operation; she still requires the use of the catheter. Ordered, a drachm and half of the sulphate of magnesia, with eight drops of laudanum, every four hours. Fomentations to the abdomen.

8. Has passed a restless night, still experiences pain in the abdomen, but more especially on the left side; the pulse is quick, but soft; the bowels have been open only twice, although the medicine has been continued every two hours during the night. Last evening the pain having become severe, and the pulse somewhat sharp, sixteen ounces of blood were taken from the arm, which afforded relief.

9. Has had a better night; the bowels are now freely open, and there is less pain in the abdomen. Leeches were applied yesterday afternoon, and again in the evening. The urine now passes naturally.

From this period nothing of importance occurred; the patient, in every respect, going on well; the wound was dressed on the 10th, and was found to have united by the first intention, throughout its greater part. At the conclusion of this report, March 19, the woman is convalescent.

GUY'S HOSPITAL,

OPERATIONS OF LITHOTOMY.

Since the last report of operations at this Hospital, Mr. Key has performed lithotomy on a child three years of age, who is now, at the expiration of three weeks, quite well. The calculus, which was small, was extracted without difficulty; the instruments employed were the knife and straight staff. The only circumstance, especially worthy of note, was that in addition to prolapsus of the rectum to a considerable extent externally, it seemed, as Mr. Key remarked, as if there was also an internal falling-down of the gut; so that it bulged forward, and consequently required much caution to avoid wounding it.

On Tuesday last, Mr. Bransby Cooper operated for stone on a stout countryman, 53 years of age; the instruments employed in this operation, *which lasted nearly one hour*, were Mr. Key's knife, (so called,) and straight staff, "my uncle's" knife, a cutting gorget, a blunt gorget, &c. &c. &c.

The patient, as indeed might be expected, died on Wednesday evening. We shall give further particulars of this *remarkable* operation.

WORKS PUBLISHED DURING THE WEEK.

Munro's Illustrations of the Anatomy of the Pelvis. Folio.

Murray's Elements of Chemistry. 2 vols. 8vo.

Bakewell's Geology. New Edition, much improved. 8vo.

Macnish on Drunkenness. Second Edition, much improved and enlarged.

Blumenbach's Physiology, by Elliotson. New Edition, enlarged.

Flemming's Zoology of British Animals. 2 vols. 8vo.

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* In cutting through the integuments, Mr. Tyrrell adopts the plan of pinching them up between his finger and thumb, and then thrusting the knife through.

THE LANCET

Vol. I.] LONDON, SATURDAY, MARCH 29. [1827-8.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXXIII.

On the Oxides, Ores and Salts of Iron.

At the conclusion of the last lecture, I stated to you that iron combined with two definite proportions of oxygen to form a protoxide and a peroxide, and I mentioned to you what these were.

Now, the protoxide may be obtained by precipitating a solution of the sulphate of iron by potash, by washing the precipitate out of the contact of air, and by drying it at a red heat. This protoxide is of a black colour, and is sparingly soluble in ammonia and the carbonated alkalies. There is a very beautiful mode of obtaining this oxide, contrived by Dr. Ingenhous, namely, the burning of iron in oxygen gas, which I shall show you. Here is a piece of iron-wire, to the extremity of which a bit of sulphur is attached for igniting it, which must be done just as you plunge it into the gas, and you should see that the stopper of the jar is sufficiently close to prevent the escape of oxygen. The wire, as you see, soon becomes red-hot, then melts, and vivid scintillations of metal are thrown off, which become quenched as they fall into the water beneath. This protoxide was formerly known in pharmacy, under the name of *martial æthiops*, and was procured by moistening iron filings with a small quantity of water, and exposing them to the air for a day or two, the oxide was then separated by washing. This oxide is of a black colour, is almost insoluble in water, and has little or no taste.

Now, to obtain the *peroxide*, you boil the protoxide in nitric acid, precipitate the solution by ammonia, and it is then to be washed and dried at a low heat. This oxide you will recollect, I stated, was composed of one proportional of metal, and of one and a half of oxygen, and was formerly called *saffron of Mars*. I need not go into an explanation of the reasoning by which this conclusion was arrived at; but this, I believe to be the fact. It has been supposed, by Gay-Lussac, that there is an intermediate compound between the two I have named; but the evidence upon this point has not been of a very satisfactory kind, and I am inclined to regard it rather as a mixture of the protoxide and peroxide, than as any definite compound of the metal with oxygen. The *native oxides* of iron constitute a very important and extensive class of minerals which vary in colour, and this is owing, in some cases, to the degree of oxidation in which they may be found, and in other cases, to their mere texture. Some of the native oxides are magnetic, and those which contain most oxygen are least attracted by the magnet. The richest ore is the *magnetic iron ore* found abundantly in Sweden, where it is used for the manufacture of the fine bar iron, and particularly for the manufacture of steel. It occurs massive, of a slight metallic lustre, and is sufficiently magnetic to take up a needle and fine iron filings. A variety of the native oxide is found crystallised in the island of Elba, and among the volcanic products, and is called *iron glance*, or micaceous iron ore. Near Ulverstone, in Lancashire, there is a variety of iron ore called *hæmatite*, or red iron-stone, and it occurs in great quantities in that neighbourhood, in globular and stalactitic masses. Most of our iron plate and iron wire is made from this ore.

Mr. Brande then showed the magnetic attraction of the different ores, by exposing them to a polarised needle; and it was shown that those ores, which contained least oxygen, were attracted by the magnet.—Now, when you come to *clay iron ore* and the *peroxide* of iron, these contain little iron, and are, therefore, unimportant sources of it. Clay iron ore contains not more than 25 or 30 per cent of iron, yet it is the ore principally worked in this country. You may ask, why we use this ore when we have others so much richer? The reason is, that it is found in great quantities in the immediate vicinity of coal and lime-stone, which are advantages sufficiently great to induce the manufacturer to work this, comparatively speaking, poor ore. It may be remarked here, with respect to the two classes of the salts of iron, that the salts containing the *protoxide* are green, and crystallisable; that they absorb nitric oxide when in solution, and absorb oxygen with great avidity by exposure to air, and acquire, in consequence, a red colour. The *peroxide* forms a class of salts with the acids, which are uncrystallisable generally speaking, soluble in alcohol, but which do not absorb oxygen from the air or nitric oxide when in solution.

This brings us to the *chlorides of iron.*—Chlorine, like oxygen, combines with the metal in two proportions, forming a protochloride and a perchloride. In the protochloride the combination takes place in the proportion of 1 of iron 28, and 1 of chlorine 36, giving 64 as its equivalent; and, in the perchloride, there is one proportional and a half of chlorine 54, combined with one of iron 28, giving 82 as its equivalent.—Now, with regard to the *protochloride*, you may obtain it by dissolving iron in muriatic acid, and evaporating the solution to dryness out of the contact of air; the protochloride then assumes a red colour, and, if intensely heated, a black colour. You may obtain the *perchloride* by burning the metal in chlorine, but you generally, at the same time, obtain also a little of the protochloride. As soon as the gas comes in contact with the metal, it begins to act upon the metal, but not intensely until heat is applied; a kind of crystalline substance then arises from the combustion, which is the perchloride. If we now act upon these two chlorides by water, we shall obtain, in the one instance, a *protomuriate*, and, in the other, a *permuriate of iron*, which are both dissolved by the water. They are difficult to crystallise, but the *protomuriate* may be obtained in small green crystals, which are not permanent, but, upon exposure to air, fall into powder, and become a permuriate. You may obtain the same compound by dissolving the protoxide of iron in muriatic acid, and evaporating it to dryness. The *protomuriate of iron* is not a salt of any importance. Now, with regard to the *permuriate*, or, *oxymuriate of iron*, as it is sometimes called, it is used occasionally in the arts, and sometimes in medicine. Dissolved in spirits of wine, it furnishes a good chalybeate preparation, and such is the *tinctura ferri muriatis* of the pharmacopœia. The composition of the protomuriate is 36 of the protoxide, and 37 of muriatic acid, or one proportional and one; and the permuriate consists of one proportional of peroxide 40, and one proportional and a half muriatic acid 55.5, so that its equivalent is 95.5; and here is the difficulty in applying the theory of chemical proportions to the salts of iron. *Iodine* and *iron* combine, and you obtain an iodate and an *hydriodate of iron*, which are of a green colour.

Iron and *nitric acid* act very powerfully upon each other, so powerfully, that you can scarcely obtain a protonitrate of iron. This, which you see here, is a *protonitrate of iron*, and is composed of one proportional of oxide 36, and of one of nitric acid 54; and the *pernitrate*, or oxynitrate, is composed of one of peroxide 40, and of one and a half of acid 81. *Sulphur* and iron may be united together, and two sulphurets of iron may be produced; they may be easily fused together, and the trick which you have seen schoolboys perform of melting a poker, by heating it red hot, and then rubbing it over with a stick of sulphur, is an example of the formation of a sulphuret of iron; the sulphur uniting with the iron to form the black or protosulphuret. The sulphuret and the bisulphuret are, in their composition, in perfect accordance with the theory of proportionals; the sulphuret being composed of one proportional of metal, and one of sulphur, and the bisulphuret of one of metal and two of sulphur. The sulphuret is used in the laboratory for the formation of sulphuretted hydrogen, and for the production of the protoxide of iron. The bisulphuret, or *pyrites*, is met with in great abundance in Nature, in a great variety of crystalline forms, of which the cube is the primitive. They are often found in masses, and in detached nodules, and being washed out of the soil, and found upon the surface, are called by the people thunderbolts. We never think of obtaining the metal from these ores. Here are also two *sulphates*, the one a *protosulphate*, generally called green vitriol, in the dry and in the crystallised state; in the dry state, it is in the form of a white powder, and the crystals are of a green colour, and rhomboidal figure. It consists of one proportional of protoxide 36, and one of sulphuric acid 40, so that its equivalent is 76. In the crystallised state, 76 parts of the dry salt unite with 7 proportionals of water 63, so that its equivalent is then 139. This salt is soluble in twice its weight of water at 60°. It is often called *copperas*, and is obtained in great quantities, by simply exposing the sulphurets to air and moisture. It is characterised by its green colour, by its solubility in water, and by its styptic taste. Its solution in water is green, and if you leave a little of the sulphuret from which it has been obtained in the solution, it may be retained in a state of protosulphate; but if you expose it to air, or to any oxidizing agents, to light, or to nitric acid, it is readily converted into a *persulphate of iron.*

Now the *persulphate* of iron is easily obtained. When crystals of the protosulphate are exposed to heat, the water of crystallisation first passes off, then sulphurous acid, and then sulphuric acid, and there remains in the vessel a brown dry powder, called formerly the *colcothar of vitriol*, which is the peroxide of iron, and this, if mixed with diluted sulphuric acid, forms the persulphate. Sometimes the protosulphate is found native in mines, that is to say, in situations where the sulphurets have been decomposed by the action of the air and water. Some time ago, Mr. Hatchett thought that he had found some crystals of the persulphate; but it was afterwards ascertained, that these crystals were compounds of the protosulphate and ammonia; it was, therefore, a triple salt, and not, as he supposed, a persulphate of iron. It is divested of the inky taste of the other salts of iron, and, therefore, has been proposed as a substitute for them in medical practice.

Iron combines with phosphorus; and both its oxides unite with phosphoric acid, forming *protophosphate* and *perphosphate of iron*; you may easily obtain them by adding to the solutions of iron a solution of phosphate of soda. The protophosphate of iron is of a pale blue colour, and the perphosphate white. The protophosphate is occasionally found native, in large quantities, in bog earth, in various parts of the kingdom; and at one time a large quantity of it was dug up, and supposed to be native Prussian blue; but it turned out to be only clay coloured with the protophosphate of iron. It was once conceived to be the colouring matter of the blood, that is to say, the *perphosphate*; but the colouring matter of the blood appears to depend upon the presence of some peculiar animal principle, and not upon any combination of iron with the blood, as I shall show you by and by.

Carbon unites with iron, and forms some very valuable compounds; all the varieties of *steel* are essentially carburets of iron; and when you remember its numerous applications, you may judge of the value of this compound. Another compound of iron and carbon is *plumbago*, or *black lead*, as it is commonly called, which is a very valuable substance; 100 parts of it are composed of 95 carbon, and 5 of iron; and if you reverse this proportion, you will nearly arrive at the composition of *steel*, it being composed of 95 iron, and 5 carbon. Now, with regard to this substance, *graphite* or plumbago, it is met with in great quantities at Borrodale in Cumberland, embedded in masses of slate and grauwacke. It is ground down into powder, and melted with sulphur for the manufacture of black lead pencils, as they are called, for carpenters; and a coarser variety of it is used for the manufacture of crucibles and earthenware; the crucibles are called black lead crucibles. It is also used as an ingredient in compositions for covering cast iron, and for diminishing friction in machines. Plumbago is very infusible, and is very difficult of combustion, which are curious properties conferred upon the carbon, by the small quantity of iron with which it appears to be combined. In some experiments made by Messrs. Stodart and Faraday on the hardening of steel, a substance was obtained very analagous to plumbago, but the composition of it was never ascertained exactly. I shall postpone what I have to offer to you, on the properties and quality of steel, until the next lecture. When iron is subjected to the action of carbonic acid, a carbonate of iron is formed. There are two carbonates of iron, a *protocarbonate*, and a *percarbonate*; and these two salts are very easily distinguished from each other, by the usual characteristics of the proto and the per salts of iron, the first being green, the second red. Now, the protocarbonate, if collected, washed, and dried, passes into the state of a percarbonate, but the preparation which we have in the *Pharmacopœia*, under the name of *ferri carbonas*, is little more than the *protoxide of iron*, or iron having lost its carbonic acid. The protocarbonate exists in a number of mineral waters, and it appears to be the best for medicinal purposes; a pint of such water seldom contains more than a grain or two of the salt; but I think, that even that minute quantity is efficacious, much more so than the large doses of iron which have been attempted to be given. When you wish to imitate mineral water, you should always use the protocarbonate; if you use the percarbonate, you will obtain a very different result, which will not at all approach to the character of the natural chalybeate water. And this induces me to pass an eulogium upon the artificial waters made at Brighton, where the greatest care is taken, as I have had an opportunity of seeing, to produce, under the superintendance of adequate chemists, and by means of appropriate machinery, the most correct imitation of the native waters. And I can see no reason why the imitation of the chemical nature of the native mineral waters, should not produce exactly the same effects on the constitution, as the native water itself; especially if their use should be combined with the respiration of good air, and the enjoyment of exercise and other amusements usually practised, in what are called watering places. I omitted to mention, that the crystals of the protocarbonate of iron are rhomboidal.

Now I have gone through the principal salts of iron, and I have nothing further to remark upon, than the application of the theory of proportions to the salts of iron, the theory tallying exactly in its application to the proto salts, but not with the per salts.

There remains for our consideration, a curious compound of iron and cyanogen called *Prussian blue*, the varieties of iron and steel, and some general remarks on the best tests for detecting the presence of the metal.

LECTURE XXXIV.

On the Salts of Iron; and on the Manufacture of Iron and Steel.

If you act upon the salts of iron by the hydrocyanate of potash, you produce from the salts containing the protoxide, a white precipitate, and from those containing the peroxide, a deep blue precipitate, which is a *ferrocyanate*, containing the peroxide of iron, and which has been called *Prussian blue*, from the circumstance of its having been accidentally discovered by a dyer in Berlin; a substance, which is extensively used in the arts and in the laboratory. The mode of obtaining Prussian blue, is usually as follows:—subcarbonate of potash and some animal substance, such as hoofs, horn shavings, or dried blood, are mixed together in about equal quantities, heated red hot, and kept in that state for some hours; and when quite cold, six or eight parts of water are poured upon the mixture. The filtered solution is found to contain *hydrocyanate of potash* along with carbonate of potash, and some other products. It is then mixed with a solution of one part of sulphate of iron, and two of alum, when a green precipitate falls down, which, by frequent washings with diluted muriatic acid, acquires a fine blue tint, which is the Prussian blue. The aluminous earth contained in the alum gives a body to the precipitate, which improves it as a pigment. The black matter remaining after the combustion of these materials, is a cyanuret of potassium, which, by being acted upon by water, is converted into a hydrocyanate of potassa; a little carbonic acid and ammonia are also formed, the latter of which is expelled by heat, and we therefore have a carbonate and hydrocyanate of potassa, which, when added to a solution of the sulphate of iron, form a precipitate of oxide and *ferrocyanate of iron*; the oxide may be removed by the dilute muriatic acid. A variety of opinions have been entertained respecting the nature and composition of Prussian blue, but this appears to me to be the simplest and most correct view of it.

Now, when Prussian blue is acted upon by boiling it with potash, the oxide of iron is separated, it loses its blue colour, and on evaporating the solution, a triple salt is formed, containing hydrocyanic acid, potash, and oxide of iron, which has been called *ferroprussiate of potash*, and *ferrocyanate of potash*. This salt forms yellow cubic and tabular crystals, which are insoluble in alcohol, more soluble in hot than in cold water, permanent, and of a peculiar taste. Here is a very fine specimen of the crystallized salt, which was presented to me by the late Mr. Parkes. The proportions in which the elements forming this salt are mixed, I shall not endeavour to lay before you, since chemists have very much differed in their opinions respecting it; but that this is the nature of its composition, those who are best acquainted with the salt, are agreed. A very few years ago, this salt was made only in small quantities, as a matter of curiosity in the laboratory, but it is now manufactured very largely in Glasgow as a mordant for the calico printers, which we shall have to consider hereafter.

If you digest Prussian blue with *strontia*, and *baryta*, and *magnesia*, *ammonia*, *soda*, and *lime*, in water, you obtain ferrocyanates of these alkalies and earths.

The ferrocyanate of potash is used as a test for the presence of many of the metals, by the colour of the precipitates thrown down, and a very valuable test it is. You have, therefore, in the elementary works on chemistry, tables giving you the different colours of the precipitates; but I must caution you against too much confidence in these tables, because the colour of the precipitate will very much depend upon the salt having an excess of acid, or an excess of base, on its being a proto, or a persalt. Here is a table showing you the colours of some of the precipitates obtained by this salt. Manganese affords a white precipitate; iron, the protoxide, a pale blue; the peroxide, Prussian blue; zinc, a yellowish white; tin, the protoxide, white; the peroxide, white, which becomes yellow, and then bluish; copper, a deep brown, and so on; and it was at one time proposed to give it the name of calorific acid, from the number of tints which it produces in combination with the oxides of the different metals. So much, then, for Prussian blue, and the ferrocyanates generally.

With respect to the general characters of the salts of iron, they are soluble in water, and are, for the most part, of a green colour, becoming brown on exposure to air; they furnish a blue precipitate with ferrocyanate of potash, and a black precipitate on the addition of galls, or any other vegetable astringent. They will be distinguished by their styptic, austere, inky taste, and by the great facility with which they blacken a great many vegetable bodies. The sulphuretted hydrogen gas, and the pure sulphurets, give no precipitation to the salts of iron; nor do the iodides.

In this Lecture, in connexion with the action of vegetable astringents on the salts of iron, I am in the habit of showing the class the composition of *writing-ink*, and I have found the following proportions of the materials the best for its manufacture:

Galls	8 oz.
Logwood	4
Gum	3
Sulphate of iron	4
Sulphate of copper	1
Cloves	¼

The galls, logwood, gum, and sulphate of iron, powdered, should be boiled in twelve pints of water to six; and toward the end of the boiling, the sulphate of copper and cloves should be added. The mixture should be allowed to stand twenty-four hours, and then decanted and bottled for use. The copper gives the ink a bright black appearance, and the cloves a pleasant odour, and prevent it from getting mildewed on its surface.

Few of the *alloys* of iron are of any importance. We shall mention the alloy of iron and tin to form tin-plate on another occasion; some few other alloys have been used, but few are of any importance. The *varieties of iron* met with in the arts is a matter of considerable importance, which will lead us to speak very briefly of the *manufacture* of iron. With regard to *tin-plate*, I may just say, that it consists of thin plates of iron, which are dipped into melted tin, so as to give them the appearance of tin. Before considering the varieties of iron, I may call your attention a little more in detail to *steel*, which is a carburet of iron, containing five per cent of carbon, and 95 of iron; and there are generally present minute portions of other substances.

The manner of *making steel*, is this: a bar of iron is heated in a vessel containing charcoal, and it is kept exposed for a long time to the heat; it is ultimately found, that the bar of iron has been penetrated, or permeated, as it were, with the vapour of carbon, which has combined with it throughout, and formed carburet of iron. When withdrawn from the furnace, it is found to be blistered; its fracture and general appearance are altered, and it is then known under the name of *blistered steel*. The bars of this first manufacture are heated again, and drawn down into smaller bars by powerful machinery, and beaten, and it is then called *tilted steel*: which, when broken up and welded, and drawn into bars, forms *shear steel*; and this, when melted along with some vitrifying flux, and cast into bars, forms what is called *cast steel* or *English steel*. The properties of steel are exceedingly singular, its texture varies in different specimens; sometimes it presents more or less of a crystalline fracture, and silky in others; and the appearance of the fracture leads the artist to apply it to particular purposes. You must see, in the selection of steel for any particular use, that the fracture is regular; and if you see a spot in it more white than another, wipe it over with nitric acid; and if the spots become darker, the specimen is not good steel. It melts more readily than iron, and it admits of welding, or uniting with iron, at high temperatures. It has a great variety of curious properties, on which its value in the arts, in a great measure, depends. Here is a piece of steel which is pliable; and if I heat it, and allow it to become cold again slowly, I *anneal* it, as it is called, and it is still more flexible than before; but, by rapidly cooling it, it becomes so brittle, that you may break it like glass. Now steel, in this excessively hard state, is a very intractable substance; but if it be gradually heated up to a certain point, it again acquires a degree of softness; and if you heat it red hot, it becomes as soft as before. I find that, at a temperature of about 430°, it begins to soften; and that, at 6 or 700, it becomes very soft, and, therefore, by proper management, the artist can give it any degree of hardness he may require, and this process is called the *tempering* of steel. The manufacturer of a razor, for example, forges out the blade in the soft state of the metal; he would then finish it, and render it hard by quenching it in water; after which it is heated, until he sees by the colour of the blade, that it is brought down to the degree of hardness required. A razor, and a dinner knife, may be made of exactly the same kind of steel; but the difference in their hardness depends upon their tempering. Experience has taught us, that differences of temperature give to steel peculiar degrees of hardness, fitting it for particular purposes; and, in the common way, the process of tempering consists in heating oil or mercury, or fusible metal, up to a certain point, in which a thermometer is placed, and the best manufacturers are now guided entirely by the thermometer in the process of tempering; whereas, formerly, the instruments were heated without any thermometer, the workmen being guided only by the change in the colour of the steel, which is a very slovenly, and often fallacious test. Polished steel at 430, begins to acquire a pale straw coloured tint, and from that to 465, it becomes so far tempered, as to be fit for razor blades, and instruments of that kind, requiring delicate edges. From 480 to 500°, it acquires a buff tinge, and becomes softer; it is now soft enough for pen-knives, and certain surgical instruments, and other purposes; at 500°, or from 515 to 530°, it becomes yellow, and begins to acquire a purple tint; from 530 to 550°, it becomes decidedly purple, and is then fit for common knives, and other instruments, requiring great toughness. At 550, or from that to 580°, the steel begins to acquire a blue colour; and it is soft enough in that state for a number of purposes, especially for thin blades intended to have great elasticity, and little hardness; and, at 590°, it becomes so soft, as to be bent without any risk of breaking, as is the case in watch-springs. This is the history of the tempering of steel; and you see, that by these differences of temperature, it acquires various degrees of density and colour; but what the nature of this change is, we do not know; you see, however, how valuable it becomes, in consequence. There is not much difficulty in tempering a bar, or thin plate of steel; because, when you heat it red hot, and plunge it into cold water, you obtain an uniform degree of hardness throughout; but when you have to deal with a mass of steel, as with a die, for example, it is a long time before the whole of the heat escapes, and you have a hard crust of steel outside, whilst the interior is soft; you have it only case-hardened; and it sometimes happens, that these are broken by violence, like the coats of an onion, into layers,—layer after layer, showing a soft nucleus in the midst of the die. I have now given you the outline of the formation of steel, of the modes of acquiring different degrees of induration, at different temperatures. A very curious process, for making steel, has been lately adopted by Mr. Mushet, of Glasgow, by passing coal gas through vessels, when red hot bars of iron are exposed to its action, and it may be a preferable mode, in some cases, to the other.

Now then we arrive at the *different kinds of iron* found in the arts, and to the modes of obtaining them.

Iron seems to have been known at remote periods, for we find, in holy writ, furnaces and modes of reducing the metal, spoken of. There can be no difficulty in obtaining iron from the pure oxides of the metal, by mixing the oxide with charcoal, and submitting the mixture to heat. The oxygen will be carried off, and the globules of the metal collected; and in this way it was, for a long time, exclusively obtained in this country and elsewhere, until our manufacturers were brought to a stand still for want of charcoal, and we were, for a long time, dependent on Sweden for a supply, especially for the purpose of making steel. About seventy or eighty years ago, the attention of several iron manufacturers, in this country, was called to the subject of manufacturing iron with common pit coal; they used the poor ores of iron; they converted coal into coke, dispelling great quantities of sulphur and other impurities, and they obtained a tolerable iron, but still inferior to that imported from abroad. At length it was ascertained that the iron ore, poor as it was, if used with coal, might be used conveniently for making iron; experiments were made, the result of which was, that the inventor of the experiment lost much money. Then it was found, that with the coal in the adjoining strata there was a great quantity of nodules of clay iron stone, which is, as you recollect, a very impure oxide of iron, and this was tried, but the experiment failed also; the metal was found diffused in globules through a very intractable mass, which prevented it from running down in the furnace, and this difficulty was not overcome for a long time, until it was discovered, that the lime stone found in the neighbourhood of the ore combined with iron stone in the furnace, and melted it down, which was a very valuable discovery. The process now employed is this: the ore is first roasted, by which process it crumbles down into a reddish substance; this is mixed with a certain quantity of lime stone, by weight, and also with a certain quantity, by weight, of coke, when the mixture is thrown into a large furnace, and exposed, as rapidly as possible, to an intense heat. The consequence is, that when the coke, lime, and iron stone are exposed to a high temperature, the lime and clay combine to form a kind of glassy compound, and the coke acts upon the iron and deoxidises it; and the globule of metal, falling through the mixture, is collected in a basin in the bottom of the furnace, which is now and then tapped, and the metal, collected in moulds, is then called *cast iron*. The height of a furnace for this purpose is about sixty feet, and when the fire is once lighted it is never allowed to go out, and it continues fit for use for six or seven years, if well built. The substance produced by the union of the limestone and clay of the iron ore is called the *slag*, and the due admixture of the coke, lime stone, and ore is a matter of great nicety, and one upon which the success of the process depends. The workmen generally know, by the appearance of the slag, what addition or alteration to make in the charge of the furnace. The furnace is tapped once in six or eight hours; and of this cast iron there are two principal varieties, the grey pig and white iron. The *grey pig* contains oxide of iron with the metallic iron, and some other metals, as silicium and calcium, and other substances, differing considerably in their relative proportions. By carefully testing, and by attending to the matrices in the furnace, the iron thus obtained is fit for a great variety of purposes in the arts. It is not very brittle, and is opposed to *white cast* iron, which is merely used for its weight, and is therefore a comparatively useless metal. The *grey iron* requires to be submitted to other processes, in order to convert it into a more useful form of metal; and this purification consists in submitting it to intense heat in a reverberatory furnace, called a *refining* furnace, where it is stirred whilst in a state of fusion, so that every part may be exposed to the air and flame, and this operation is called *puddling*. This process is continued until the mass becomes tenacious, and it is then submitted to the rolling mills, where a large quantity of extraneous matter is forced out, and the metal is rolled out into malleable bars. These bars are afterwards broken up, *fagoted*, as it is called, and again submitted to the refining furnace, where it undergoes another puddling, and being then again submitted to the rolling mills, it forms the best *bar iron*.

The discovery of this process of obtaining iron must be considered an important one for that branch of manufactures in this country, and, in its details, is very interesting and curious; but what I have given you is of course only a bare outline of the subject.

In the next lecture we shall begin the description of the properties and salts of zinc, tin, and cadmium.

FOREIGN DEPARTMENT.

REPRODUCTION OF BONE.

The substance from which new bone is formed; the changes which it undergoes; its relation to the periosteum; the conditions which retard or promote its formation, are the circumstances deserving of our most attentive consideration.

The first appearance which presents itself, after a fracture, is an extravasation of blood, extending along the whole limb, and covering the muscle and the fracture. The blood thus extravasated has been supposed, by some, to have some part in the reproduction of the bone, and the formation of the callus. Macdonald has treated the subject in this way, and examined the changes with considerable minuteness. The blood appears to come principally from the medullary structure of the bone, not from the vessels of the osseous substance itself; because the blood is not found on the edges of the bone. Exuded blood is thus supposed to be the basis of union; the red part becomes absorbed, and the remaining portion converted into gelatine. The periosteum inflames and becomes thickened; and in the gelatine effused beneath it, the first points of ossification may be observed, not close to the fracture, but at some distance from it; on the surface of the periosteum, and not on that of the bone. The central portion of the callus, between the fractured extremities, becomes ossified last, and not until the new periosteum, as it appears, has formed from the cellular membrane of the circumjacent muscles. The new periosteum is at first thick and loose, but connected with the callus. The points of bone appear at first rather externally than in the middle of the gelatine.

It appears then that the ossification of the callus stands in close connexion with the formation of the periosteum, and that the development of the latter precedes that of the former. The result of observations, opposed to these, may be probably explained by the part which the old undestroyed periosteum may have had in the formation of the callus. The regenerated bone runs through the same stages as the original bone. The gelatinous substance at first becomes hardened. It appears a proper question, whether callus, prior to its conversion into bone, become cartilage or not?—*Meckel's Archiv.*

RUSSIAN MEDICAL SERVICE.

INVITATION TO ENGLISH SURGEONS.

Official Notification.

1. Foreign medical men, and especially those of Sclavonian extraction, are invited to enter the Russian service, either in the regiments of the army, in the military hospitals, or in the navy. During the 1st year they will be attached to some hospital in order to enable them to acquire the Russian language, so as to understand their patients, and be understood by them.

2. The candidates are required to produce certificates of good conduct, as well as satisfactory testimonials, from the Universities or schools where they have been educated.

3. The candidates will be divided into two classes, according to the degree of knowledge required. Those who have studied every branch of medical science, may be appointed to the superior functions of the medical departments of the land or naval forces, and will belong to the 1st class. They are to be examined in natural history, natural philosophy, chemistry, pharmacy, botany, anatomy, physiology, pathology and therapeutics, in materia medica, surgery,

midwifery, medical jurisprudence and medical police. They must, besides, know Latin. In the second class will be admitted those who, not possessing the necessary knowledge of practical surgery, may, nevertheless, be sufficiently acquainted with the other branches of medical science, and may also be promoted to superior ranks. Their examination is to be in chemistry, botany, anatomy, physiology, pharmacy, materia medica, pathology, therapeutics, the theory and practice of surgery, as well as medical jurisprudence and medical police. As to Latin, no more is required than what is necessary to understand the pharmacopœia, and to write prescriptions.

4. Foreigners who wish to be received into the Russian service as medical men, either in the land or naval services, are to proceed to St. Petersburgh, after having obtained passports, which on their application will be granted to them by the Russian embassies or consulates abroad.*

5. On their arrival at St. Petersburgh, they are to apply immediately to the medical department of the ministry of war, or to the physician in chief of the navy, who will take the necessary steps for the examination of the candidates, and appoint them to situations suited to the medical knowledge they shall be found to possess.

6. The examination shall be made by the Medico-Surgical Academy, in any of the European languages the candidate may choose; but those who intend to graduate in medicine, can only be examined in Latin, and, if they have not yet received a diploma, the above-mentioned Academy is authorised to grant them one, according to its existing regulations.

7. Such medical men whom the Academy will have deemed fit to be admitted into the 1st class, will receive an indemnification of 150 ducats † for their travelling expenses, and those of the 2nd class, will receive 100 ducats. ‡ As to the individuals who shall have been judged inadmissible in either of these two classes, they will not be entitled to any indemnity, and will not be received into the service.

8. Medical men of the 1st class will be entitled to an annual salary of 1000 res.; § those of the 2d class of 800 res.; ‖ they will, moreover, as the other medical men of the land and naval services, be allowed their lodging and military servants.

9. Every medical man will be obliged to serve at least 12 years. He who, during the first 6 years, shall have performed the duties of his profession in an irreproachable manner, will receive for the remaining 6 years, an annual increase of salary of 100 res.

10. At the end of the 12 years, such medical men will be at liberty, either to remain in Russia, or to return to their own country.

11. Those who, during that time, shall have distinguished themselves by their zeal, will receive, on their quitting the service, a gratification equal to two years' salary, according to the rank they occupied last; or, should they prefer it, a pension equal to one half year's salary will be granted to them; which pension, however, can only be enjoyed on the condition of their continuing to reside in Russia.

12. If any of the medical men should die before having completed a service of 6 years, his wife and children will be entitled to receive the amount of one year's pay, together with that part due to the deceased for the Tierçal,* in which he died. If he has served from 6 to 12 years, his heirs will be entitled to a gratification of double his yearly salary, and in case of his dying between the 12th and 20th year of his service, a pension of half his yearly salary will be granted to his widow and daughters, till the time of their marriage or decease, and to his sons, till they are of age. Lastly, in case of his having served more than 20 years, his heirs will be entitled to a pension equal to the amount of his yearly salary, according to the rank of the deceased, at the time of his demise; but such pension shall cease the moment such heirs quit Russia.

13. The widows and children of medical men who have no claim to a pension, shall receive, if they wish to return to their own country, besides the above-mentioned gratification, 30 ducats for their travelling expenses. Those who can lay claim to the half pension, or to the whole one, shall be paid, besides the 30 ducats above mentioned, the former 2000, and the latter 3000 paper rubles.

14. On his entering the Russian service, every medical man will obtain a rank corresponding with the academic degree conferred on him. His ulterior advancement will depend on the general regulations concerning the medical service of the land and naval forces.

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* Russian Consulate in London, 29 Great Winchester-street, Old Broad-street, City. Hours of attendance from 12 to 3 o'clock.

† About £75 sterling.

‡ About £50 sterling.

§ About £43 15 0 sterling.

‖ About £35 sterling.

* A third part of a year, or 4 months.

ST. THOMAS'S HOSPITAL.

CASE OF TRAUMATIC TETANUS, WHICH PROVED FATAL IN TEN HOURS.—POST-MORTEM EXAMINATION.

I. Skelton, ætat. 9, was admitted into the Hospital on the 13th of March, under the care of Mr. Travers, in consequence of having received injury to both hands from the explosion of gunpowder. There was extensive laceration of muscular fibre, as well as integuments at the ball of each thumb; but as far as could be ascertained, there was no injury to the tendons or bone. The parts were brought as nearly in apposition as possible, and a portion of the muscle which protruded was cut away.

Every thing went on favourably;—the wounds suppurated, and were healthy in appearance, until Tuesday the 18th, when that on the right hand was observed to have a sloughy aspect. On the following morning, Wednesday, the boy complained of stiffness about the neck, and difficulty of deglutition, and was shortly after attacked with a convulsive fit. At noon, when seen by Mr. Travers, the symptoms of tetanus were all present in a marked degree; the pulse was very rapid, the countenance anxious, and the spasms truly horrible The measures directed, were the exhibition of ten grains of calomel immediately, and an enema containing half an ounce of turpentine, alternating it every four hours with a tobacco injection, prepared by infusing fifteen grains in six ounces of water. One terebinthinate injection only was administered. In the evening about seven o'clock, when preparations were making to exhibit a second, the boy was attacked with convulsions, which, in a few minutes, terminated his existence. He died in about ten hours from the commencement of the tetanic symptoms.

In the post-mortem examination, the brain was found to be unusually vascular throughout; the cineritious matter was much darker than natural, especially on the right side. It was considered by Mr. Macmurdo, who carefully examined the body, that the brain, taken as a whole, was softer than usual, but that the parts contained in the right ventricle were preternaturally hard. There was effusion of serum between the arachnoid and pia mater of the brain, as also to a considerable extent between the membranes of the chord; the latter were highly vascular—to such an extent, indeed, that they had the appearance of having been artificially injected. The substance of the spinal marrow was healthy.

It is particularly worthy of notice, that the lungs were gorged with blood, but, apparently of an arterial character, these organs being of a bright red colour. The same appearance of the lungs, it was said at the time of examination, has usually been found in the dissection of fatal cases of hydrophobia—on this subject we cannot speak confidently.

GUY'S HOSPITAL.

CANCEROUS ULCERATION OF THE PENIS, ATTENDED WITH PROFUSE HÆMORRHAGE.

The following case was admitted under the care of Mr. Key on the 28th of February; it is interesting, as affording an instance of profuse hæmorrhage occurring in the ulcerative progress of a malignant disease, and the history of the case tends, in some measure, to confirm the opinion of Mr. Hey on this subject—that there is usually congenital phimosis, in patients affected with cancer of the penis.

The patient is a mechanic, 39 years of age, of sallow, or rather leaden complexion, and not of intemperate habits; he stated that five months ago a sore made its appearance on the upper part of the penis, and he attributed it to infection from venereal disease, having had a suspicious connexion about this time. Previously to the ulceration, however, he had had for several months a hardness or thickening, which he could feel through the integuments, and, from the description given, was apparently at the back part of the glans; there had been for some time also a slight purulent discharge from beneath the prepuce. He had never been able to effect the retraction of the prepuce, but to a very limited extent, but he now found greater difficulty.

The sore on the upper part of the penis gradually extended, and the patient placed himself under the care of a surgeon; who, as he affirms, made his mouth sore with mercury, under which the ulceration of the penis was checked. Subsequently the sore got worse, and after it had existed about two months it bled profusely on one occasion, and slightly afterwards.

There had been excessive bleeding on the morning of his admission into the Hospital, but it was checked at the time of his coming in. In the latter part of the day, having occasion to walk in order to fetch some clothes, the hæmorrhage was renewed by the exertion, and he came back to the Hospital, bleeding profusely. The dresser made use of a solution of alum, spirit of turpentine, and pressure for a considerable time, before the bleeding could be checked.

On the 1st of March, two days after admission, Mr. Key prescribed the nitro-muriatic acid lotion: he considered the disease, on a cursory examination, to be of a venereal kind, at least we presume so, from his remarking to the pupils, that it would "by and by require a little mercury, for its cure." In the course of a few days, however, Mr. Key expressed his opinion of the disease being cancerous in its nature, and the following description was then taken down:—more than half of the penis is affected with ulceration, forming a misshapen *warty* mass; having apparently left a portion of the glans and prepuce, the disease has extended along the body of the penis—the corpora cavernosa are exposed, and it was from them the blood proceeded, during hæmorrhage. The glands in each groin are much enlarged, and there is great induration along the whole course of each spermatic chord. The man experiences occasional lancinating pain in the parts, but his sufferings, according to his own account, are not very great. That portion of the penis which is not in a state of ulceration, is, even down to the pubes, literally as hard as a stone. The integuments are of a livid colour, and there are several minute openings through which a sanious fluid issues.

Hemlock poultices are used, and opium exhibited at bed-time, palliatives being the only means, it is considered, that can be adopted. Sir Astley Cooper has seen the man, and has expressed his opinion that the disease is too far gone to admit of relief by an operation.

ST. BARTHOLOMEW'S HOSPITAL.

FRACTURE OF THE BASIS OF THE SKULL.

A. B., a stout, middle-aged man, being in a state of drunkeness, had been thrown with considerable violence on the pavement, and received a severe blow on the head; he was taken up senseless, and immediately brought to the hospital. On his admission, there was complete loss of sensation and voluntary motion; his breathing was quick and laborious, pupils contracted and nearly motionless, pulse frequent and very feeble, and his extremities were cold. There was a bruise of the scalp over the right temporal muscle, and considerable bleeding had taken place from the right meatus auditorius externus. A few hours after his admission, he vomited, his pulse became full, hard, 90, and his extremities warm; breathing less laborious, and his pupils contracted freely when a candle was brought near them; at intervals he was very restless, and was with difficulty kept in bed. Sixteen ounces of blood were taken away; aperient medicine was given, and produced stools, and his head was shaved and kept cold with wet cloths. The following night he was very restless, and had but little sleep; during the day, he was more quiet; put out his tongue when desired, but did not appear conscious of feeling when pinched. His breathing was natural; pupils active; pulse hard and full, 72. In the evening, his temporal artery was opened, and he lost 30 ounces of blood. Third day, he was so restless and unmanageable during the night, that it was necessary to put a strait waistcoat on him; he seemed more conscious of feeling; pulse 90. A blister was applied to the nape of the neck, and his bowels opened by some purgative medicine. Fourth day, he was more sensible, and answered questions when roused; pulse full, and rather hard, 110. He was ordered to take five grains of the hydrarg. c. cretâ, three times a day, and twenty leeches were applied to the temples. Fifth day, was less restless, drew away his arm when pinched, and complained of pain in his head; pulse feeble, 120. A blister was applied to the head. On the sixth day, his pulse was somewhat hard and full, he was bled to ten ounces; shortly afterwards there was increased stupor; his breathing became laborious, and his pulse more feeble and frequent; and in the evening he died.

Examination fourteen hours after death.

There was a fracture of the basis of the skull, extending through the right half and middle portion of the occipital bone, and the petrous portion of the right temporal, to the sella turcica. Beneath the fracture, and lying upon the dura mater, was found a considerable quantity of congealed blood; the coagulum being not less than half an inch in thickness, and seven or eight inches in circumference. The brain in the corresponding situation was quite flattened. A small quantity of fluid blood was effused over the right hemisphere of the cerebrum; the pia mater covering the left hemisphere, was very vascular, thickened, and some patches of blood were effused beneath it. The cribriform plate of the ethmoid bone was fractured, and at the extremities of the anterior lobes, blood was effused into the cerebral substance, and formed with it a brown pulpy mass; the brain for a few lines around it was of a dark yellow colour, soft, and when cut into, presented numerous bloody spots; the same appearances, though in a slighter degree, were observed at the extremities of the middle lobes. The membrana tympani of the right ear was ruptured.

On Monday last, Mr. Lawrence performed the operation of lithotomy, on a man, twenty three years of age. The patient had laboured under symptoms of calculus for many years, but had never suffered much pain. Blizard's knife was used, and a stone, the size of a large walnut, was extracted. Its surface was of a dark brown colour, rough, and hard, and composed of oxalate of lime. Six or seven ounces of blood were lost in the operation, but the hæmorrhage soon ceased.

ON DIABETES MELLITUS.

BY DR. ALEXANDER OF MANCHESTER.

To the Editor of The Lancet.

Few disorders, to which "human flesh is heir," have more occupied the attention of the medical profession, elicited the ingenious hypotheses of its members, or afforded a more amusing discrepancy of opinion, than the complaint called diabetes. Believing that every mode of practice is justly termed "empirical," whilst the *proximate cause* of the disease, under treatment, is not clearly understood; and believing, further, that if the veil of obscurity, which envelops this in common with too many other complaints, is *ever* to be raised, and the opprobrious title of "incerta ars" (conferred upon medicine by its reputed father) *ever* to become inapplicable: these *desiderata* must be effected by diligence, investigative as unceasing; reflective as accumulating: there is litle apology necessary for calling the attention of your numerous readers to a subject which has lately been discussed (see Lancet, No. 234,) in the Westminster Society, with so little credit to itself, or benefit to its members. But without further preface, the opinion, advocated in Dr. Ayre's paper, read to that society, as well as in Dr. A's communication to The Lancet (see No. 235,) appears to be, that in diabetes (to quote the author's words) "there exists an exaltation of the vital action of the secretory vessels of the kidneys, analogous to inflammation in other structures;" or to convoy this unhappy definition in fewer words—that diabetes is *essentially* an inflammatory affection of the kidney. Were this opinion confined to the hall of the Westminster Society, it would have passed unnoticed by me; but such is not the fact. Therefore I proceed to make a few comments upon the case adduced by Dr. Ayre, as supporting this view of its pathology. In the first place, allow me to ask, were there *any symptoms*, in the example related by the author of the paper, to indicate the existence of visceral inflammation? None. Then why suppose this case of diabetes to depend upon, or be accompanied by, an inflamed condition of the kidney? Forsooth, because the operation of cupping was succeeded by an amelioration in the condition of the patient!! The concurrence of these two circumstances, it appears, having induced Dr. Ayre to believe, that the complaint is an inflammatory one; he proceeds to inculcate this opinion in spite of his own professional knowledge and powers of reflection; the former of which would have whispered him, that the kidney, when suffering under inflammation (chronic or acute), is not insensible; and the latter, that the cupping *might* have no reference whatever to the abatement of symptoms. From such hasty deductions as the above it was, that Dr. Gregory had so much reason for lamenting the existence of what he termed "false facts," in medicine. To assert that the kidney is inflamed in this disease is a ready and convenient mode of accounting for its inordinate secretion; but will the symptoms during life, or the appearances after death, support, for a moment, this opinion? I fear not; during the former we have *presumptive* evidence for the disbelief of such a doctrine, and after the latter, we have *positive* evidence to the contrary. It is somewhat singular, that Dr. Ayre, believing this affection to be "analogous to inflammation in other structures," should direct the patient's food to consist of the "*ordinary* proportions of animal and vegetable diet." Most practitioners, entertaining the views of Dr. Ayre, would certainly have diminished the quantity, if not dispensed altogether with the former kind of diet. But, probably, Dr. Ayre thought a combination of the Brunonian and antiphlogistic treatments would succeed better than either separately; the principle is not a bad one, being the one which caused our medical cane-carrying forefathers to believe that two heads are better than one, and that if one drug in their prescriptions failed, by employing a round half dozen, some other might succeed. But to return: we find another direction given to the patient, viz. "to abstain from all fermented liquors and ascescent fruits," the effect of which abstinence, Dr. Ayre seems to attach *as little*, as I feel inclined to give *great*, importance to, believing that it had quite as much, not to say much more, effect in abating the symptoms, than the oft-repeated and highly-lauded operation of cupping. Of the complaint being a "*purely local*" one, as Dr. Ayre terms it, more anon.

Perhaps the most generally received, and most plausible explanation of this complaint, was, that diabetes is a local affection, arising from a *disordered action* in the kidney; in other words, that it is a *functional*, and not an *organic* disease of that organ. The principal argument which has been adduced in support of this view, is, that sugar, which forms so remarkable a constituent of the diabetic urine, cannot be detected in the blood. Now this, it is evident, if fairly inquired into, explains nothing, excepting the proof which it affords of the sugar being formed in the kidney. Before it could be considered as in any degree elucidating the pathology of the disease, it became necessary to show whence the *disposition* to the formation of saccharine matter arose, the kidney not sufficing: the blood was next considered to be the source of the evil, and the explanation was attempted upon chemical principles, (forgetting that the laws which operate in the animal economy, have not a similar influence in the chemist's crucible, and *vice versa.*) It was supposed that there is in the blood flowing to the kidney, a deficiency of azote; partly from knowing that unazotised food increased the symptoms, and partly from knowing that sugar contained none. This explanation (or rather, attempt at explanation) was, at the time, thought one of the most happy illustrations of the applicability of chemical knowledge towards investigating the "abdita naturæ;" but this opinion gradually fell into disesteem amongst the *few*, although it is still, in some degree, credited by the *many*. 1st, From finding that diabetic patients fed *exclusively* upon food highly azotised, did not recover their health; and 2nd, from the chyle, which is the pabulum sanguinis, being found the *same*, whether a person be fed upon an animal or vegetable diet. But as it is always pleasanter and less invidious to descant upon the views which we ourselves entertain, than to point out and dwell upon the errors of others, (leaving it for those, who think themselves repaid for the trouble, to analyse and speculate upon the theories respecting this complaint, which Cullen, Heberden, and others have favoured the profession with,) I proceed, in as few words as possible, to give my own humble opinion respecting diabetes; which, whilst it is not entirely original or peculiar to myself, I have formed from repeated observations of the disease under consideration.

1st. I believe the complaint to be essentially a *constitutional*, and not a *local* one.

2nd. I look upon the mellitic urine as a mere effect of the general disorder; and,

3rd. Deem all local remedies, such as cupping, blistering, &c., in the same light that I should regard opium being applied to relieve cramp in the legs of a person suffering under cholera; or, in other words, as treating *effects*, and not the *causes* which produce them.

In support of my views, I need scarcely remind your readers that diabetes seldom, if *ever*, attacks those who are in the enjoyment of good health, which, supposing it to be simply a *local* affection, would be the case. Now if we recall to mind the examples of this disorder which have come within our own individual cognizance, or if we review with attention the cases of others, we shall find that the unfortunate diabetic sufferers were previously *aged*, *debilitated*, or *diseased*. Of those who have narrowly observed this disease during life, and noted its traces after death, I would inquire, is there any function that is not deranged in this complaint? Is there any part of the system that is not implicated? Is there any solid that is not discoloured; any circulating fluid that is not vitiated? In short, is the kidney, after death found to present a *more unnatural* appearance than what is observed in *every other part* of the frame? The answer to these queries must be in the negative; hence, I conclude, that the *whole system* is disordered, and the diabetes a mere *symptom* amongst others of its being so; hence, I conclude, that animal food diminishes the quantity of mellitic urine, *not* from its highly azotised nature, but from its being simply of the most nourishing description of aliments, and thus peculiarly adapted for the debilitated; hence, I conclude, that vegetable food aggravates the complaint, not from its wanting azote, or containing (as Dr. Ayre would have us to suppose) principles irritating to the kidney, but from its being a difficult article for the debilitated stomach to digest, and when digested, affording little nourishment. When any one will show me a person whose general health is good, and whose organisation is sound, the former not having been impaired by imprudence, or the latter by age, attacked with diabetes, *then* will I freely admit that the complaint may be an *independent cause*, and not an *accidental effect; then* will I regard it as placed with propriety in our nosologies as a disease. But, until then, I feel strongly inclined to regard debility (whether general, dependent upon organical disease, or attendant upon age) as the *remote*, a disordered state of the alimentary apparatus as the *exciting*, and a depraved condition of the whole body as the *proximate*, cause of that disorder, of which mellitic urine forms such a prominent and remarkable symptom.

I have the honour to remain,
Your obedient servant,
John Alexander, M. D.
Booth Street, Piccadilly,
Manchester.

PROSECUTION OF MR. COOKE OF EXETER.

To the Editor of The Lancet.

Sir,—Since I had last the advantage of occupying some space in your valuable columns, certain other incidents connected with my late prosecution for the disinterment of a body at Exeter have occurred, which I am anxious to communicate to your readers. It was moved in the Court of King's Bench in January last, that all those additional costs which had fallen upon the prosecutors, by reason of my procuring the removal of the cause into the above Court, should be taxed upon me. This application was founded upon an old Act of Parliament, which provides for those cases, in which a defendant, without any good reason, but for the sake, perhaps, of annoying his prosecutors only, procures a writ of certiorari, and thus increases the expense. As this had not been my motive, (which consisted in an entire distrust of the judicial impartiality, and indeed ability, of the magistrates, and in an apprehension of general prejudice,) I readily assented to the proposition of my counsel, that the order for payment of costs should be opposed. This gentleman, (Mr. Coleridge, to whom I wish I could express my concurrence in the general high opinion which is entertained of his legal knowledge, and of his clear and classical eloquence,) further grounded his opposition on an affidavit, made by a gentleman of Exeter, stating, that he had heard the nominal prosecutors; those poor friends, namely, of the deceased, in whose names the whole had been conducted, and who are considered the actual prosecutors in law, declare, that they had not instituted any proceedings at all, that they had expended nothing, but that, on the contrary, they had been paid for their time and trouble, and that they did not make the present application for costs. The fact is, that money had been raised by the personages of the vestry-meeting, who, with their proverbial generosity, had voted the necessary sums *out of the pockets of the parishioners!* The law required that the *actual prosecutors* should have suffered pécuniary loss, which, being denied by affidavit, of course no costs were awarded to *them*; and as to the illustrious holders of the parish helm, they are "rich fellows enough, and some that have had losses."

I have been informed that the money is now in process of collection from *all the parishioners*, and that they are so far from cordial in their obedience to the parish administration, that it has been necessary to make a show of that authority with which it is so *wisely* endowed. I cannot, Sir, describe the tardiness of this payment:

> "The line must labour, and the words move
> slow."

Here, forgetfulness is pleaded: there is one declaring that *he hates oppression:* a third is willing that anatomy should be studied, having *lately* become convinced of its utility. A fourth, who never doubted this, is of opinion, that *occasional* disinterments of *poor people* ought to be connived at. There are a few who stoutly maintain the propriety of the late prosecution. They hold, that those who so much encourage disinterment in ever so indirect a way, connive at a *vile sacrilegious trespass*, not to say a *burglary*. Next, they contend, that as this is the case of *all* such persons, much more is the character of *the parishioners* at stake, who have *connected themselves with an affair of this kind by their representatives.* These logicians, Sir, are the original proposers of the action; men who stand accountable in the books of the attorney, and they are amazingly eloquent in preaching charity sermons for themselves.

I am sure that you, Sir, and every just (to say nothing of generous) individual, will be pleased to hear of the final defeat of that, which you have so truly characterised as a paltry persecution. I had almost said *second* defeat; because it is matter of common observation, that this *second attempt* (which one could pity, were it not so very ridiculous) arose out of the galling recollection, that I had been screened even from pecuniary punishment, by a high-minded effort of the free medical press, which had opened, as if by magic, the hands of a generous and zealous profession. The time when students of anatomy will not be exposed to these vexatious attacks, is, I hope, very fast approaching; and if, in the mean time, any should be subjected to them, I heartily wish them the support with which I have been honoured, and (what would not be half so gratifying, however,) more liberal, that is to say, better instructed prosecutors. With continued admiration,

I am, Sir,
Your most obedient servant,
WM. COOKE.

London, March 22nd, 1828.

UTERINE HÆMORRHAGE FROM IDIOSYNCRASY.

To the Editor of THE LANCET.

SIR,—In the last of Dr. Blundell's valuable lectures, (being that on After-Floodings) the following observations are made:—

"Some women there are, from idiosyncrasy, peculiarly liable to bleeding; and very undesirable patients they are; the probability being, that they will ultimately die under your hands. Hence it becomes a question in cases of after-floodings, whether we can use any means of prevention. Now, as I am in general called to cases in which the flooding has commenced before my arrival, I have had very little opportunity of seeing the effect of any preventive practice, and cannot, therefore, from my own experience, enlarge upon this topic."

Not long since I met with a case which, as it bears on the above remarks, may not be uninteresting. I engaged to attend a woman in her approaching labour, and, on questioning her, I found that she had been delivered of nine children; and that, immediately on the birth of each child, flooding came on to such an extent, that for upwards of twelve hours she remained in a state of syncope, inducing extreme debility, from which she did not recover for many months. In the major part of her labours she was attended by one practitioner, who always remained with her twelve or fourteen hours after the delivery had been effected.

Under these circumstances, I desired her to send for me at the very commencement of her labour, which she did; and I immediately procured a quantity of ice, and immersed in it a jug of spring water. The labour proceeded naturally and rapidly; as soon as the child's head had cleared the vulva, and while the shoulders were yet undelivered, I gave my patient a tumbler full of the ice-cold liquid; the body of the child was quickly liberated; the placenta followed in about two minutes; the due contractions of the uterus were indicated by after-pains; a very moderate quantity of blood escaped; and my patient expressed much surprise and pleasure at her exemption from her usual tax. A very slight shivering was the only untoward symptom; but this I was prepared for, and did not attempt to relieve. It quickly passed, and within half an hour after the delivery I left the house, well pleased that I had apparently saved myself many hours of trouble and anxiety.

It may be necessary to state, that I endeavoured to ascertain whether, in the former labours, the placenta was quickly expelled, and whether there were any after-pains; but the woman's insensibility at the time precluded the possibility of her affording me any information on the subject, and it unfortunately happened, that a removal from the country to the metropolis obliged her to change her nurse.

I have the honour to be, Sir,
Your obedient humble servant,
J. G. Evans.

March 20, 1828.
St. Alban's Place.

ON MEDICAL CRITICISM.

To the Editor of The Lancet.

> " 'Tis hard to say, if greater want of skill
> Appear in writing, or in judging, ill;
> But, of the two, less dang'rous is th' offence,
> To tire our patience, than mislead our sense."

Among the professors of politics and medical literature, the pretensions to independence are so universal, that a stranger to the trickery of authorship, and the cant of literary hypocrisy, would naturally conclude that the opinions of the critic were quite under a bond, as secure as the solemn guarantee of a legal witness's oath, which enjoins him to speak " the whole truth, and nothing but the truth," under the penalty of his soul's perdition for his perjury. But the cant of *ex parte* criticism, and the mercenary character of our periodical press, have become proverbial. It is a stigma on about nine-tenths of our literary indicators, that the self eulogy of laborious independence is on their lips, while the serpent envy coils around their hearts. Their comments are argumenta ad hominem; and (still to speak metaphorically) as the really brilliant lights of science, or the paltry gods of their own idolatry, may be the subjects of their criticism, so do they dip their pens into the gall of invidious satire, or the sympathetic ink of servile flattery, easily deciphered, however, by the penetrating glance of real and candid impartiality. I confess, Sir, that such is the distrust and suspicion which I have long entertained for most of our critical analyses, that I regard them in the same light as I do the fulsome eulogiums of the ignorant parent, dazzled with some very slight good quality in her child, and blind to its thousand defects and deformities.

These critics are, indeed, little better than the sectarian bigot; for while the one will warp and mutilate the holy records to suit his own selfish views, (for even " the devil can cite scripture to his purpose,") adducing only those texts which seem to throw light on his own dogmas, so will the other, in servile obedience to the literary despot who rules him with a rod of iron, trumpet forth the virtues and abilities of all those satellites who revolve round this great *Jupiter Bibliopola*, however impeachable may be the one, or shallow and erroneous the other. Such reviewers

> " Judge of author's names, not works, and then
> Nor praise, nor blame the writings, but the men."

All who have reflected on this subject, will feel and acknowledge that this imputation may be justly cast on the great majority of reviewers in general literature. It would lead me, however, into digression, were I to take so comprehensive a view of the subject. My remarks shall peculiarly apply to the literature of our own profession; that profession which is capable, *præ aliis*, of conferring incalculable benefits on mankind, if liberally cultivated, and *judiciously defended*, but which must of necessity fail of attaining its full grade of perfection, while that Augæan stable, from which the streams of its degradation have so long flowed, shall remain uncleansed. But, leaving this Herculean task to wiser heads and more powerful sinews, I venture to offer a few brief remarks on a subject of no less importance to the march of medical intellect—*the duties of medical criticism.*

With regard to the *qualifications* of a reviewer, I may assert the utter *unfitness* of one who possesses not *independence*, *discrimination*, *extensive reading*, and *leisure*; in addition to which, I may mention well-directed satire, so often influential in exposing presumptuous ignorance, and effecting important revolutions, when mere force and serious severity have failed.

> - - - - - - - "Ridiculum acri
> Fortius et melius magnas plerumque secat res!"

To the first and last of these qualities (as I am not writing an essay) it is my purpose to allude, for I will not suppose a publisher so blind to his own interest, as to select an editor who does not possess a moderate share of discrimination and of literary research.

It is clear, then, that the fact of a medical bookseller being the publisher of an analytical review, must sap the very foundation of independent criticism. Let me ask, Sir, how far removed from absolute idiocy, would be that manufacturer who should expose his commodity for sale in his warehouse or his window, and should notify on his placard, that such commodity was totally inapplicable to the purposes for which he had made and sold it. And does not the situation of a publisher, especially one who embarks a considerable sum in the purchase of a copy-right, bear a strict analogy to this manufacturer. We should deem that man a fit subject for the coercion of Warburton or of Haslam, who did not give, at least, a gentle hint to his editor, not to attack the reputation, the judgment, and the very existence of his employer with his pen; this would, indeed, be

> Suo sibi gladio hunc jugulare.

Sir, candour here would be a paradox, and would soon drag its possessor along the high road to ruin. The fault, it were not too much to call it the crime, lies, like the *College Charter*, in the principle itself; and I am bold to declare, that it were vain to expect anything like liberality of criticism, while the publisher is his own reviewer. I wish not to add my feeble effort to the breaking of a bruised reed, (for I write in pity,) but truth bids me declare, that this outrage on literary delicacy, and on common justice, is peculiarly exemplified in a Journal, published within 100 miles of Fleet Street. It is evident how little faith we ought to place in the censure or the praise of such a Journalist. But there is another material deficiency, no less destructive to the welfare of medical science—*the want of leisure*. It is the duty of a critic, Sir, to read carefully and candidly each publication which he reviews; not to throw on it a superficial glance, and comment, perhaps, on one only link in the author's chain of reasoning. The injustice of such a mode is self-evident: but it is indeed the natural consequence of entrusting the duties of criticism to those who enter on them, fatigued, perhaps, with the labour of an extensive practice, in which state of exhaustion they retire to their study with any thing but a

> Mens sana in corpore sano.

This is perhaps the least evil: there is a greater still than this—the custom of reviewing by deputy: of consigning that sacred duty to one, who, perhaps, knows as little of the subject he is called on to analyse, as he does of the longitude, or (what is still more ridiculous) to another, who may be the very author of a rival publication. It is confessedly the interest of such a man to decry, in the harshest terms, the pages of his opponent; and rather than "*write himself down an ass*," he will do so, in terms of the most unreasonable censure, and often of unqualified abuse; and with the *green-eyed monster* at his elbow, sullying with his jaundiced guilt the literary reputation of his rival. Nothing, surely, can be more absurd or unjust, than this system of reviewing by deputy. It is wonderful that a critic should run the hazard of compromising his professional and literary character by such a dereliction of duty. I could enumerate many instances of the bad effects of this *mode of reviewing* (for my observations are grounded on facts): but I will merely allude, for the present, to a certain libellous letter, on the character of the male accoucheur, published a year or two ago, which would form an admirable preface to "the paralytic feeling of Carlisle;" a farrago of the most absurd reasoning and mock modesty, which has ever disgraced the pages of science: and I confidently believe that that (to say the least) injudicious letter, has proved one great source of the downfal of the Journal in which it appeared.

I could expatiate, Sir, much longer on this subject, so important to the interests of professional literature, but I must forbear, and shall merely express my ardent hope, that your own example may emancipate the present batch of critical slaves, and establish for us a principle of liberal and independent criticism.

I am, Sir,
Your obedient servant,
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March 10, 1828.

WESTMINSTER HOSPITAL.

To the Editor of THE LANCET.

SIR,—On referring to the letter of Westmonachus in the last number of your valuable Journal, "on the advantages of the Westminster hospital," after admitting the benefit to be derived by appealing to public opinion, in matters of dispute between pupils and their instructors; your correspondent proceeds to inform your readers of the many and great opportunities afforded to the pupils of this hospital, in the pursuit of surgical knowledge. Not contented with stating the truth, he has permitted his spleen (to use a phrase of his own) to get the better of his judgment, in affirming that the pupils are at liberty to enter the wards at all times, question any patient they may select, or take notice of any case.

Now, Sir, this is an erroneous statement, and Westmonachus must, or ought to have known it, before he made the assertion. The pupils are allowed to visit the patients daily, from ten till twelve, A. M., but are not permitted to enter the Wards, unless accompanied by a physician or surgeon; and it is in direct violation of the rules of the Hospital for them to remain after the medical officers have left. Post-mortem examinations are very seldom performed; and when performed, they are so badly conducted, as to afford little or no information to the pupils, neither are they publicly announced. I think I may assert, without fear of contradiction, that the surgeons are highly reprehensible in neglecting the performance of this duty,—a duty which they owe, not only to the pupils, but to the public at large. To the industrious student in pursuit of pathological knowledge, a knowledge indispensably necessary for the surgeon, as well as the physician, who wishes to treat diseases upon scientific principles, Westmonachus's one word, "CIRCUMSPICE," will not suffice; but perhaps this gentleman is one of the many who depreciate all pathological researches, considering it sacrilegious to lay hands on the dead.

In justice to Mr. Lynn, junior, I must state, that I have never known him otherwise than punctual in his attendance, and at all times ready to impart information to the pupils; but this is more than can be said of the other surgeons, and every industrious student of this hospital, must have frequently suffered both from this irregularity and non-attendance. I am not one of those who would cavil at trifles; but when a surgeon possesses neither mental nor corporeal endowments, sufficient to entitle him to retain office, or when he, from his extensive private practice, neglects his duties to his pupils, day after day, it is high time that he should resign his appointment in favour of a more efficient and attentive person; or, if he is unwilling to do this, he must expect to be held up to public notice.

I remain, Sir,
Your obedient servant,
PHILALETHES.

March 24th, 1828.

COMPLAINTS OF A PUPIL AGAINST MR. HEADINGTON.

To the Editor of THE LANCET.

SIR,—I take the liberty of addressing you, as one who feels interested in behalf of the pupils of the different hospitals, and, on every occasion, is ready to stand forth their advocate, in redressing old grievances. You are, perhaps, aware,* that the chief inducements which pupils have of attending the London Hospital, are the very excellent lectures delivered by Mr. Headington, and the privilege of becoming dressers after a short time. Mr. Headington, for what reason I do not know, has thought proper to resign his charge and duty to Mr. Luke, in great measure, and only lectures once or twice a week. The latter gentleman also *reads* his surgical lectures, and gives part of the demonstrations. The students would not object to Mr. Luke's lecturing, did that gentleman possess the necessary qualities for a good lecturer, which, forsooth, he does not. The consequence is, that the majority of the pupils do not attend the surgical lectures, as they can hear so little to their profit. The number of those who attend the surgical lectures, seldom exceeds twelve or fourteen, many of whom can scarcely keep up their attention. If you can think of any remedy for bringing Mr. Headington to his duty, you would greatly oblige the students, and confer a favour on them, which they will not forget.

I remain, Sir,
Yours, &c.
LONDINENSIS.

March 15, 1828.

P. S.—I have stated above, that Mr. Headington had lectured twice a week. I must correct this error, as he has only given one anatomical lecture for nearly three weeks.

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* Indeed we are not.—ED.

THE LANCET.

London, Saturday, March 29, 1828.

IN the following brief abstract of the Parliamentary proceedings of Monday last, the medical profession will observe, with much satisfaction, that the difficulties which are opposed to the cultivation of the science of anatomy were brought under the consideration of the House of Commons. The presentation of a petition on the subject, signed by upwards of SIXTY of the surgeons and physicians of Birmingham, gave rise to a short, animated discussion, characterised throughout by important features, and which terminated with a notice of motion for Thursday, by Mr. WARBURTON, for that Committee of Inquiry, which was petitioned for by the Members of the College, at their General Meeting, held on the 18th of February, 1826. As a preliminary step to this motion, Mr. Warburton, in the last session of Parliament, moved for certain "Returns," since laid before the House by the College, and a copy of which the reader will find at page 954. We regret that the publication of the INDEX to the present volume renders it impossible for us to give any account of the proceedings of Thursday in this Number; we may venture to predict, however, that the Committee will be appointed without opposition.

House of Commons, Monday, March 24.

Mr. DUGDALE presented the following Petition from the Physicians and Surgeons of Birmingham, complaining of the inconvenience experienced by numbers of their profession from the want of bodies for dissection, and calling upon the House to remove the impediments which were at present thrown in the way of the cultivation of anatomical science.

"*To the Right Honourable the Commons, &c.*

WE, the undersigned physicians and surgeons of the town of Birmingham, respectfully implore the attention of your right honourable House to the urgent necessity of adopting some measures to remove the impediments to the cultivation of the science of Anatomy.

Unfortunately deprived of legislative authority, exhumation is, at present, the only method by which bodies can be procured for anatomical purposes, a method painful to the feelings of the public, and opposed by the laws of this realm.

In various parts of the continent of Europe the prosecution of the science of Anatomy is protected by their respective governments, and every facility afforded for its liberal and extended cultivation; hence, the youth of Great Britain, designed for the medical profession, are compelled to proceed to foreign countries in pursuit of that information which is denied to them here.

As the practical surgeon is formed only by the laborious study of Anatomy and actual Dissection, your petitioners presume not to dwell upon the advantages to be derived by the public service and society at large, by attention to their prayer.

Your petitioners most earnestly solicit your right honourable House to take this important subject into its serious consideration, and adopt such measures as in its wisdom may be deemed fit.

And your petitioners will ever pray."

Sir R. FERGUSSON thought that few, if any, such petitions had ever before been presented to that House; but he could not help thinking that the subject now called to their attention, perhaps for the first time, deserved the most serious consideration of the House. It was a matter of the most vital importance, and the difficulty of procuring subjects was at present so great, that he feared, if it were suffered to continue, the teaching of anatomy must stop, and the schools would be deserted for the want of means to offer instruction to the pupils.

Sir J. YORKE said, he had presented some petitions of this kind in the course ot last year, and he was glad that the attention of the House was now recalled to the subject. He wished for a declaratory law, the object of which should be, to let the public know that any one *in articulo mortis* was at liberty to sell his body for anatomical purposes, and to allow executors, administrators, and assigns, to give over the bodies of such persons to the purchasers. He was certain that if such a law was passed, there would be bodies in abundance; for there were few paupers who would not be glad to leave ten guineas to their widows; and the practice, thus introduced, would have this particular advantage about it, that those who went out of the world with any particular disease would be known to the medical profession, who would purchase their bodies, and thus be better enabled to ascertain the nature of that disease, and its effects upon the human frame, than they could possibly hope to do when, as at present, they were generally supplied with healthy subjects, that were only good for the purpose of teaching the younger pupils the common processes of dissection. He thought the House should state the law to be what he had mentioned; for now he believed it was generally considered that such a disposition of the body by the executor, although under the directions which the testator had given, was not authorised by law.

Mr. Warburton said, that in a short time he should move for a Committee to inquire into the subject which the petition had brought under the notice of the House. He had determined on doing so, in consequence of the particular request of some of the first surgeons in the metropolis. In a subsequent part of the evening, the Hon. Member fixed his notice of motion on this subject for Thursday next.

Mr. P. Thompson thought, that among the alterations of the criminal law, the House might introduce one which would materially assist in destroying the prejudice now commonly entertained against anatomical dissection. One of the concomitants of the severest penalty of the law was, in some cases, the handing over the body of the malefactor for dissection, and that circumstance tended to create a strong feeling of prejudice, which would probably cease to exist when that part of the law was altered. There was no such feeling in France, where bodies might be procured at ten francs each; in consequence of which there was no want of subjects for the schools, and the science of anatomy was taught under much greater advantages than in this country.

The petition wus brought up, read, and ordered to be printed.

Ecce iterùm Crispinus! We have not yet done with Mr. Guthrie; although, if the character of that individual, in so far as it is connected with his legal proceedings against The Lancet, were the only point on which an examination of Dr. Forbes's statement was calculated to throw light, we should deem it necessary to apologise to our readers for recurring to a subject, in which the profession and the public could take so little interest. But the conduct and character of Mr. Guthrie are not the only points involved in this inquiry. The transactions disclosed in the extraordinary correspondence published by Dr. Forbes, are not transactions of a private nature. That correspondence brings to light, indeed, a secret history; but it is a secret history to which it is of the last importance, both with reference to the interests of the medical profession, and to the pure administration of justice, that the utmost publicity should be given. That correspondence strips the mask from affected purity; removes the veil from spurious pretensions, and opens to our view the moral machinery, which, under cover of an apparently honourable object, was, in reality, directed against a Journal, which had long been felt as a thorn in the side of the corruptionists, and whose fearless exposure of abuses was the true *gist* of Mr. Guthrie's action. That correspondence lays bare to our admiration a member of the profession, who, while he was ostensibly seeking reparation for an alleged injury done to his professional reputation, and ostensibly courting the fullest inquiry into the unimpeachable character of his professional practice, was, at the same time, conscious that the testimony of his own colleague, with respect to his practice, if fairly elicited, would be unfavourable to him; who confesses, indeed, aye, distinctly confesses, that he did not expect favourable testimony from his own colleague, and whose sole hope of obtaining a verdict against The Lancet must have been founded, therefore, on the expectation that he should succeed in suppressing evidence, which, if fairly and honestly given, could not but be fatal to the cause of action. We beg the attention of our readers to the passage in which this extraordinary confession is made; premising that "the purpose" to which Mr. Guthrie alludes is, that of sounding his colleague, Dr. Forbes, as to the nature of the evidence he would give upon the trial. "After a few minutes' conversation, direct to the purpose, I left him with the conviction, that, WHATEVER QUESTIONS MIGHT BE PUT TO HIM, he would say nothing detrimental to me—favourable I did not expect." *Correspondence*; *Mr. Guthrie to Mr. Samuel Beazley*, No. 8. Favourable testimony the "modest author" did not expect; for Dr. Forbes had months ago enabled him fully to understand the estimation in which he held his abilities as an ophthalmic surgeon; Dr. Forbes had months ago declared to him, that, in his opinion, "stimulating applications to the eyes of the patients were too *indiscriminately* used, and that constitutional treatment was, in many cases, not sufficiently attended to." But though Mr. Guthrie did not expect favourable testimony, he went away with the conviction that Dr. Forbes, WHATEVER QUESTIONS MIGHT BE PUT TO HIM, would say nothing detrimental to him; in other words, he went away with the conviction that Dr. Forbes would violate the oath he must have taken to tell the whole *truth*, and to suppress no part of it; and that, though panegyric was not to be expected, he would, nevertheless, suppress those unfavourable opinions, which could not but be fatal to the object of Mr. Guthrie, namely, a verdict *per fas et nefas* against The Lancet. O, unexampled modesty! O, honourable, rational conviction! Mr. Guthrie did not—bashful creature!—expect that Dr. Forbes would be lavish in his praise, but he went away with the conviction that he would suppress his unfavourable opinions; and this too, let it be well observed, *à tout épreuve*, in spite of all questions which might be put to him, and notwithstanding all attempts which might be made on the part of Counsel or Judge to elicit the truth. No matter whether the question put to Dr. Forbes were to ascertain whether stimulating applications were, or were not, *indiscriminately* applied to the eyes of the patients—no matter whether the question put to Dr. Forbes were to enable the Jury to determine, whether constitutional treatment was, or was not, sufficiently attended to—"WHATEVER QUESTIONS MIGHT BE PUT TO DR. FORBES," Mr. Guthrie, although perfectly conscious of his colleague's unfavourable opinions, went away with the conviction that he would either evade them altogether, or so shape his answers to them, that nothing adverse to his professional interests, or to his desire of obtaining an unjust verdict against this Journal, might transpire.

We believe that the internal mechanism of a suit at law, in which, to use a familiar expression, the plaintiff had not a leg to stand upon, was never so completely exposed, as it has been by the publication of the correspondence between Mr. Guthrie and Dr. Forbes. Here is a plaintiff, who has not, and who feels that he has not, the slightest chance of obtaining a verdict against the party, whom he accuses of misrepresentation, unless he can succeed in suppressing or qualifying the testimony of the witness, most capable of speaking to the matter in issue, and who, if he were called into the witness-box, and respected his oath, must prove that there was no just ground of action. We find this plaintiff sounding the witness, whose testimony he had most reason to apprehend, with a view of ascertaining how far he might calculate on his forbearance—we find this plaintiff holding out to the witness, by way of inducement to forbearance, that he (the plaintiff) would "pay him a compliment in the course of the trial." (Dr. Forbes's statement, *Lancet*, p. 837.) We find this plaintiff, though fully acquainted with his colleague's unfavourable opinions, nevertheless, leaving him with the conviction that his testimony, WHATEVER QUESTIONS MIGHT BE PUT TO HIM, would not affect the success of his action—and, finally, we find this plaintiff abandoning the action at the twelfth hour, when he found that no consideration could induce that witness to tamper with his oath, or, when called upon, in the witness-box, to declare his opinion of the plaintiff's skill as an opththalmic surgeon, to SUPPRESS THE TRUTH.

How far the TRUTH was unfavourable to

Mr. GUTHRIE, and in what degree it was incompatible with his object of obtaining a verdict against The LANCET, the "modest author" shall himself determine. Strongly as we should feel inclined to scrutinise Mr. GUTHRIE's testimony, before we pinned our faith upon it, on almost any other occasion, we wish for no better testimony on this point than his own. The circumstance which finally determined Mr. GUTHRIE to make his retreat from the Common Pleas, was the receipt of a letter from Dr. FORBES, in which that gentleman undeceived him as to the "CONVICTION" on which he had hitherto honourably calculated; reminding him that he could not but be aware of his opinion, "that stimulating applications to the eyes of the patients were too indiscriminately used, and that constitutional treatment was, in many cases, not sufficiently attended to;" and further apprising him that "if questions were put to him concerning the practice, he should feel himself compelled to state as above." This letter Mr. GUTHRIE himself characterises as "expressive of Dr. FORBES's determination to give that, which he took to be the strongest possible evidence against him." (*Correspondence: Mr. Guthrie to Mr. Beazley No.* 8.) Again Mr. GUTHRIE himself observes: "to say *that stimulating applications were too* indiscriminately used, and that *constitutional treatment was, in many instances, not sufficiently attended to,* was expressing an opinion as to my want of judgment, which could not have failed to make a strong impression in every quarter, and which appeared to be highly detrimental to me, as coming from my colleague, the physician to the Infirmary, and BEING, IN FACT, IN DIRECT SUPPORT OF THE MATTER OF THE LIBEL." (*Correspondence; No.* 11: *Mr. Guthrie to Mr. Beazley*).

This last admission of Mr. GUTHRIE relieved us altogether from the necessity of making any observation on the mode and form in which our correspondent ACIES, on whose letter Mr. GUTHRIE declared in his action, expressed his opinion of Mr. GUTHRIE's ophthalmic practice. Laying aside the jokes of ACIES on the provincial accent and grammatical inaccuracies of Mr. GUTHRIE, which the 'modest author' never intended, we presume, to make a part of the *corpus delicti*, the passage in which the writer said "he was inclined to suspect that Mr. GUTHRIE would put out many eyes, till he learned to subdue inflammatory action by other means than the employment of stimulating washes, or oxymuriate drops"—the strongest passage in the alleged libel—was, in substance, as Mr. GUTHRIE himself admits, no more than a repetition of the opinion repeatedly declared by Dr. FORBES, his own colleague.

Whatever doubts Mr. GUTHRIE might entertain, or affect to entertain, as to the adverse nature of Dr. FORBES's opinions before the receipt of the letter to which we have just alluded, that letter must, at any rate, have effectually removed them, since we find him expressly stating that the letter indicated Dr. Forbes's determination to give evidence "in unequivocal support of the matter of the libel." After the receipt of the letter, therefore, it is evident that Mr. GUTHRIE knew he had no more cause of action against THE LANCET than he had against his own colleague, Dr. Forbes. Yet with this new conviction, assuming it to be a *new* conviction, for the sake of the supposition most favourable to the "modest author,"—with this new conviction forced upon his mind, in this state of perfect consciousness as to the identity of the sentiments of his own colleague with those of the writer of the alleged "libel," Mr. GUTHRIE still seems to have clung to the hope of inducing his colleague to suppress his unfavourable sentiments. "On going into Court," says Mr. GUTHRIE, "I met and asked Dr. FORBES whether he was determined to abide by his letter to me of the preceding evening. He replied, he was; to which I said, it would put an end to the proceedings, and I left him." Here again we have a precious specimen of the morality of the *Pures*. Mr. Guthrie has the modesty to ask Dr. Forbes whether he was determined, when called into the witness-box, to give such testimony as he was bound, if he had any regard for his honour or his oath, to give; and when this question is answered in the only way a man of honour could answer it, Mr. Guthrie then, and not till then, declares that it would put an end to the proceedings, and expresses his virtuous indignation at the conduct of his colleague.

The conflicting feelings of vexation at the failure of his attempt to suppress the testimony of Dr. Forbes, and of self-gratulation at the sagacity which enabled him, by a timely retreat, to prevent his own exposure, and extricate himself from a false position, are ludicrously expressed by Mr. Guthrie in the following passage:—

> "To have gone into Court to have myself abused, I should not have minded, provided a complete and triumphant proof of the falsehoods and insinuations stated had followed, certified by a verdict giving heavy damages; but to subject myself to that abuse, and then to have my colleague called as a witness, and to have him give evidence in unequivocal support of the matter of the libel, could only have obtained for me the appellation of a blockhead: I had more sense than to do it.

Mr. Guthrie, it seems, would have gone into Court, and would have put up with a little abuse—patient individual!—provided he could have succeeded, by suppressing Dr. Forbes's testimony, and by making that appear to be false, which his colleague has proved to be TRUE, in obtaining a verdict, with heavy damages, against The Lancet! There is a simplicity in this avowal of the "modest author," which is truly primitive and Arcadian. The passage breathes of primeval purity. It surpasses every thing we ever remember to have met with, in the way of candour and bashful ingenuousness. Verily we marvel at the manner of the man, from whom such a declaration could have proceeded. He deserves to have fallen upon better times, and to have flourished in an age untinctured with brass, amidst his own congenial virtues.

- - - - - "Verumque, fidesque,
Nudaque simplicitas, ingenuusque decor;"

These are the qualities which move our wonder in every line of the passage which we have just quoted from the "modest author." The writer stands forth in naked, but blushing, simplicity, extorting, while he shrinks from, our approbation!

We have now arrived at the close of the transactions connected with Mr. Guthrie's action against The Lancet, and we beg the further attention of our readers, while we sum up briefly the leading facts developed in Dr. Forbes's extraordinary statement. We have shown that the statements in The Lancet, both with respect to the late attendance of Mr. Guthrie, complained of by the patients, and with respect to the want of an efficient house-surgeon in his absence, which were characterised by Mr. Guthrie as *infamous and malignant falsehoods*, were declared by his colleague Dr. Forbes to be TRUE.

We have shown that Mr. Guthrie attempted to answer the first of these statements, by altering the hours of attendance, ante-dating the period at which the alteration was made, and then declaring the statement, which applied to the regulation, that existed previously to the alteration, to be *an infamous and malignant falsehood*.

We have shown that Mr. Guthrie attempted to answer the second of these statements, by affirming that Mr. Tebbs had held the office of house-surgeon for a period of two years; while, in the teeth of this affirmation, Mr. Guthrie's colleague, Dr. Forbes, has proved, that Mr. Tebbs was, for the first time, raised to the rank of house-surgeon on the very day on which Mr. Guthrie asserted, that he had held the office for two years.

We have shown that Mr. Guthrie further attempted to answer the second of these statements, by affirming that "Mr. Tebbs was better able to treat diseases of the eye, than nine-tenths of the surgeons of London," while, in the teeth of this affirmation, Dr. FORBES has declared, that Mr. Tebbs had been *once*, if not *twice*, rejected by the College, and that Mr. GUTHRIE himself confessed, on the day previous to the expected trial, that Mr. Tebbs was *ignorant of anatomy*!

All these facts we have demonstrated in our two former articles, abstaining, for the most part, from comment, and contenting ourselves either with placing the statements of Mr. GUTHRIE in juxta-position with the conflicting statements of Dr. FORBES, or with opposing what Mr. GUTHRIE has written or declared at one time, with that which Mr. GUTHRIE has written or declared at another. The other incidents in this singular history we have traced, step by step, in our present article. With respect to the alleged libel in the letter of our correspondent ACIES, we have shown, from Mr. GUTHRIE's own admissions, that the substance of that letter contains nothing more disparaging to Mr. GUTHRIE's professional skill, than that which his own colleague was prepared to prove in evidence against him; we have shown, from his own admissions, that he had, in point of fact, no more cause of action against THE LANCET, than he had against his own colleague Dr. FORBES. As to the mode and form in which ACIES communicated his opinions, we are ready to admit that, in point of taste and tenderness to a "modest author," he might have abstained from scoffing at Mr. Guthrie's provincial pronunciation, and grammatical inaccuracies. But, admitting that ACIES is, to this extent, a licentious writer, let it be remembered that the charge of licentiousness applies only to his raillery on peculiarities in the discharge of a public duty wholly unconnected with Mr. GUTHRIE's private character, and not to his remarks on the mischievous tendency of Mr. GUTHRIE's ophthalmic practice, which are substantially the same, according to Mr. Guthrie's own admission, as those of his colleague Dr. FORBES. Even Mr. GUTHRIE had the wisdom not to go into Court to seek damages for the affront offered to his pronunciation, and his bad English, when Dr. FORBES's determination to speak the TRUTH left him no hope of sustaining the *gravamen* of his charge. And if hereafter another, and a more unfriendly ACIES should arise, who may chance to speak slightingly, or even licentiously, of his ophthalmic practice, as well as of his authorship, we recommend to Mr. GUTHRIE's perusal and study the following passage in a celebrated speech of Lord CHESTERFIELD:

> "Every good in this life has its allay of liberty. Licentiousness is the allay of liberty. It is an ebullition, an excrescence; it is a speck upon the eye of the political body, which I can never touch but with a gentle, with a trembling, hand, lest I injure the eye upon which it is apt to appear."

Mr. GUTHRIE, we are aware, laughs at the notion of the eye being a delicate organ, and will despise the illustration, as well as the sentiment of Lord CHESTERFIELD. But Mr. GUTHRIE's contempt for the press is an affliction which the press can well afford to bear. It was well observed, indeed, by an eminent individual, on the day appointed for the trial, that, however formidable Mr. GUTHRIE might be as an operator on the human eye, as an enemy to free discussion he was little to be dreaded; and that, whatever effect his plans of treatment might have in extinguishing the eyes of his patients, he would find himself completely baffled and defeated in his attempt to *put out the eyes of* THE PRESS.

THE Number of the Edinburgh Review, just published, contains an article on Dietetics, which is chiefly dedicated to a review of Dr. Paris's recent publication. Among the books classed together at the head of the article, is a treatise on the Morbid Sensibility of the Stomach, by the Editor of the late Quarterly Medical Journal. In general, Reviewers think it necessary to read at least the title of a book; but, in the present instance, even this mark of attention seems to have been dispensed with, for the author of the treatise in question is styled Dr. JOHNSTONE. The Reviewer, however, may have his reasons for thus spelling the name of his countryman, for we understand that JOHNSTONE is really the name of the late Quarterly Journalist, and that he has divested himself of the T, in order that he may have the gratification of alluding, in his speeches at the Medico-Chirurgical, and other societies, to his illustrious *namesake*, the author of the Rambler. This ridiculous, but harmless piece of vanity, brings to our recollection an anecdote which we once heard from a Jamaica planter. In the West India Colonies, the planters are in the habit of giving the names of distinguished Europeans to their slaves, so that it is no uncommon occurrence to find William Shakspeare, John Locke, Oliver Cromwell, and other great personages, all working together in the same plantation. Our Jamaica planter had distinguished one of his slaves by the name of William Pitt. This man had acquired a little learning beyond his condition; he could read, and even write, after a certain fashion, and was, in other respects, an excellent slave, until his brain was turned by the doctrines, political and religious, instilled into it by a fanatic of the school of Wilberforce, who had, moreover, accelerated the catastrophe by plying the poor creature with newspapers, containing the parliamentary debates on the slave-trade. The first indication which William Pitt gave of his insanity was, a refusal to clean his master's shoes. The planter was astonished at this apparent contumacy in a slave whose general conduct was so exemplary. Under ordinary circumstances the whip would have been resorted to; but it soon became apparent that this was a case requiring a different species of coercion, when, upon being reprimanded for his disobedience, William Pitt assumed an erect attitude, declaring, that, in the whole course of his parliamentary experience, he had never heard of a prime minister who cleaned shoes, and that, for his part, he was determined to tread in the footsteps of his right honourable predecessor, the Chancellor of the Exchequer!

WE have inserted, at the request of the Russian Consul General, an invitation to English Surgeons to enter the Russian Naval and Military Service. The document will found at page 935. After having given it an attentive perusal, the *advantages* offered, will not, we should think, induce English students to VOLUNTEER.

Surgical Observations on the Treatment of Chronic Inflammation in various Structures, particularly as exemplified in the Diseases of the Joints. By JOHN SCOTT, Esq., Surgeon to the London Ophthalmic Infirmary, &c. pp. 291. 8vo. 1828. Longman.

[*Continued from p.* 919.]

THE object of this work, as announced with singular modesty in the Preface, is said to be, to communicate that mode of treatment which the author's father "has for many years employed in diseases of the joints, with complete success, in a *vast* number of cases, in which the methods ordinarily employed have proved ineffectual." Further on, the author assures us, that his father, by a "dexterous application" of remedies, has succeeded in curing "many local diseases which had baffled all previous efforts." Thus much by way of prefatory laudation of the father. The author himself, too, has verified the efficacy of the treatment in "numerous cases;" and he designs his book "as a guide to the young surgeon." It would seem that there is a sort of hereditary virtue in this family for treating diseases:—"It is with good reason," says Sancho Panza to the Squire with the great nose, "that I pretend to have a judgment in wine—this is a quality hereditary in our family." But, let us apply the test to all this *bounce*—let us see what the wonder-working means are, which, in the hands of Messrs. Scott, cure diseases that "baffle" all other surgeons, and which are declared to be "too important to be confined to an individual;" they are—guess reader if thou can'st—*mechanical support*, and the *local application of mercury*.

Previously to considering diseases of the joints, the author enters into an inquiry on the nature and treatment of chronic inflammation and ulceration in general. "Inflammation in a chronic form," he says, "differs in *degree*, but not in *kind*, from that which is acute;" and it has the usual terminations of acute inflammation, viz. "effusion of lymph, suppuration, ulceration, and (though more rarely) sloughing." Effusion of serum, the most common result of inflammation, is not enumerated. The following passage will convey a tolerable idea of the author's reasoning powers:—

> "Inflammation in the lower extremities may be excited, maintained, and aggravated by a varicose state of the veins. Under these circumstances, the vein being greatly dilated, its valves become unequal to their office, and no longer sustain the column of blood which it contains; the consequent gravitation of this fluid impedes the circulation in the minute venous ramifications: thus arises venous congestion, which necessarily excites increased arterial action, and this being exerted not only on the venous branches which are the seat of congestion, but also on the secerning extremities which terminate in the cellular tissue, there occurs in the latter an effusion of serum. If the limb be continued in the depending position, the inflammation is augmented, coagulable lymph is at length effused, and, if the process goes on, the vascular structure of the part becomes weakened, and ulceration is the consequence. Thus, the two essential conditions of this disease are venous congestion, and increased arterial action."

Venous congestion *necessarily* excites increased arterial action, and this, that is to say, the *arterial* action, is exerted on the *venous* branches, and there occurs an effusion of serum. Verily Scott, thou art a "second Daniel come to judgment."

The remedy for this state of things, we are next told is *mechanical support*, a mode of treatment which the author says was introduced into practice by Mr. Baynton; this, we believe, is a *trifling* error. Even before Wiseman, who recommended the laced stocking, surgeons were in the constant habit of using mechanical support in the treatment of ulcers of the legs, in order to counteract the effects of the dependant position. Mr. Baynton's method was simply a modification of former plans, adhesive plaster being used, in conjunction with a bandage. Mr. Scott, however, objects to Mr. Baynton's plan of treatment, contending that it does not give uniform support to the limb. He therefore recommends the adhesive strips to be applied to the whole limb. And this is really the whole of the extraordinary and important "secret," which the author says is too important to be confined to an individual. We should think there is not an apothecary's apprentice in the united kingdom, who is not acquainted with this wonderful secret of affording uniform support in cases of ulceration of the lower extremity; and we venture to say there is not one who would have explained its *modus agendi* worse than Mr. Scott has done.

The author, after relating, with tedious minuteness, four cases in which ulcers of the leg were cured by means of supporting the limb, passes on to the consideration of cases which cannot be cured by mechanical support; (we can tell him they are numerous;) and here he recommends the local application of mercury, indulging in the following hypothesis:—

> "Mercury, however, when locally applied, has the same power of subduing chronic inflammation as when internally administered, and this without producing its

constitutional effect; hence we may get all the benefit without any injurious effect."

Upwards of thirty pages are occupied with cases, in the treatment of which mercury was used locally, and, as the author asserts, with complete success. The efficacy, it would seem, is equally great, whether there exist a breach of surface or not. In several of the cases, that very remarkable and novel application, the *black wash*, was had recourse to with the most favourable result. Really these secrets *are* too important to be confined to an individual.

We now arrive at that part of the work which treats of diseases of the joints; from which, in fact, the title of the volume is derived. As the author tells us in his Preface, the pathology of the joints has been so fully investigated by various writers, especially "in Mr. Brodie's invaluable work," that little remains to be done, we feel surprised that he should have devoted several pages to this part of the subject, doling out, as he has, the veriest common-place twaddle with such evident self-complacency.

In the directions for constitutional treatment, we have the subjoined lucid intelligence:—

> "Even in the most acute stages and most inflammatory forms of the diseases of the joints, there is usually little occasion for general depletion: the relief of the part is nearly all that is required for the removal of the febrile state of the system it may have produced. The only constitutional evacuants that are necessary are purgatives, the choice and management of which depend on the particular disorder of the digestive organs."

And further on:

> "When we witness the deleterious influence of marsh air on the human constitution, and the length of time it will last in the form of ague, even after removal from it, it is easy to believe and comprehend the opposite truth, the beneficial influence of a healthy atmosphere."

In speaking of the local treatment, Mr. Scott very shrewdly remarks, that "if the joint be in a state of more or less active inflammation, the first object we have in view is to subdue it." But his "experience" leads him to believe that "the probable effect of blood-letting will be better indicated by the state of the constitution, than by the activity of the local disease."

In the chronic stage of diseases of the joint, as observed in our last Number, Mr. Scott objects to the use of blisters, tartar emetic ointment, setons, issues, and moxa; the means he recommends in lieu of them, are, mechanical support, and the external application of mercury, in the manner previously described.

On this we may remark, that, although diseases of the joint may, and indeed do, in their advanced stage, involve all the textures, yet, it is not to be supposed, that under the sweeping designation "chronic disease of the joint," one remedy is universally applicable. There are many cases, we know, in which *uniform pressure* may be usefully employed; but there are others, in which it would be decidedly injurious. Now, Mr. Scott has entirely omitted to show in what kinds of chronic affection the remedies he advocates are especially applicable. We shall not, after the extracts we have given, insult the understanding of our readers, by attempting to show that there is nothing novel in the treatment recommended by Mr. Scott; and in respect to his hypothesis concerning the local action of mercury, it is really so ingenious, that we are almost tempted to leave him in quiet possession. However, we think it right to insert an opinion on the action of mercury, formerly stated in print by Mr. Travers, but subsequently, we are sorry to find, expunged; it was to this effect: "the red oxide of mercury, when applied to an ulcer, is rendered useful, by affording a supply of oxygen to the blood, contained in the vascula minima!"

It is Martinus Scriblerus, we think, who, in his directions for attaining the true genius for the "profound," observes, that it is necessary to contract the true "*gout de travers*," in order to acquire a most uncommon and unaccountable way of thinking: Mr. Scott will bear this in mind.

We must, however, conclude. The remainder (nearly one half) of the volume is occupied by "cases," which are, for the most part, devoid of interest; and not of any earthly use, except as a means of advertising the author's—"nest eggs," as Hudibras expresses it. The work, we perceive, is dedicated to Dr. Farre, "as a token of esteem for the depth of his MEDICAL knowledge, the philosophical STRUCTURE of his mind, and the religious benevolence of his heart." How does it happen that the liquor opii sedativus man, Dick Battley, is not included in the dedication? Has *he* not a "philosophical *structure* of mind," and a "religious benevolence of heart?" "Friend Saunders" also, we think, might have been included, and then, indeed, we should have had a right worthy trio. We can depict to ourselves the inexpressible horror which the pious Dr. Farre must have necessarily felt when he read the word "*structure*;" downright rank materialism, said he, and flew to his constant carriage-companion — Jeremy Taylor.

We have, perhaps, already said more than enough of this trashy volume, but we cannot forbear expressing our unqualified disgust at that portion of the Preface, in which it is contended, that, in most diseases, the treatment is not to be learned from pathology, but requires a separate investigation. Contemptible sophistry indeed, but the drift of it is evident enough; for, after remarking that the late Dr. Baillie, although he knew how to distinguish disease, did not know how to cure it, better than other men; and condemning the French *en masse*, for the minuteness of their pathology, and the "inefficiency" of their remedies, the author, in the very next passage, speaks of the success of his FATHER's practice!

We do not, in our conscience believe, that a medical work possessing less merit ever issued from the press.

ROYAL COLLEGE OF SURGEONS.

Returns to Orders of the Honourable House of Commons, dated 22 June 1827, for Returns relating to Sums granted or lent; Appropriation and Expenditure; Regulations of Admission to the Hunterian Museum, and to the Library; Education and Examinations; Persons Examined; Fees demanded, &c.

N° 1.—Return of the Sums granted or lent to the Royal College of Surgeons, from the year 1799 down to the present time, by His Majesty's Government, for the purchase of the Hunterian Museum; and for building, purchasing, repairing, or improving, the premises of the said College in Lincoln's-Inn Fields.

The sum of 15,000*l.* granted by the House of Commons on the 13th of June, 1799, for the purchase of the Hunterian Collection, was not granted to the College, but was issued to the executors of Mr. Hunter by the Lords Commissioners of His Majesty's Treasury.

The House of Commons, on the 4th of July, 1806, granted the sum of 15,000*l.* for enabling the College to erect a proper and commodious building for preserving and extending the collection of the late Mr. Hunter, and a theatre for the delivery of public lectures on anatomy and surgery.

The House of Commons, on the 30th of April, 1810, granted to His Majesty the sum of 12,500*l.* to be paid to the Court of Assistants of the Royal College of Surgeons in London, to enable them to complete the erection of a museum and theatre, with an appropriate front, in Lincoln's-Inn Fields.

N° 3.—Return of the Appropriation and Expenditure of the Sums granted or lent to the Royal College of Surgeons, from the year 1799 down to the present time, by His Majesty's Government, for the purchase of the Hunterian Museum, and for building, purchasing, repairing or improving the premises of the said College in Lincoln's-Inn Fields.

The sum of 15,000*l.* granted for the purchase of the Hunterian Museum, was issued by the Lords Commissioners of His Majesty's Treasury to the executors of Mr. Hunter.

The two sums of 15,000*l.* and 12,500*l.*

granted to the College for enabling them to erect a museum and theatre, with an appropriate front in Lincoln's-Inn Fields, have been expended in the erection of such building, together with the additional sum of 30,500*l.* and upwards, from the funds of the College.

N°. 3.—Return of the regulations under which Members of the College, Students in Surgery, or other persons, are admitted to the Hunterian Museum.

Among the conditions on which the Hunterian Museum was delivered to the care of the late Corporation of Surgeons, is the following, relating to admission:

The collection shall be open four hours in the forenoon, two days every week, for the inspection and consultation of the Fellows of the College of Physicians, the Members of the Company of Surgeons, and persons properly introduced by them; a catalogue of the preparations, and a proper person to explain it, being, at those times, always in the room.

The Board of Curators of the Museum have subsequently directed,

That the Museum be open on every Monday and Friday from twelve until four o'clock:

That licentiates of the Royal College of Physicians of London; graduates in medicine of any of the universities of the united kingdom; and regularly admitted members of any of the legally constituted Colleges of Surgeons in the united kingdom; be allowed the privilege of admission to the Museum, on such days, and during such hours as it shall be opened for general exhibition, upon entering their names in the book provided for that purpose:

That surgeons and assistant surgeons in the army, ordnance, navy, and East India Company's service, be allowed the privilege of admission to the Museum on such days, and during such hours as it shall be open for general exhibition, upon entering their names and respective ranks in the book provided for that purpose:

That scientific foreigners be admitted to the Museum at any time when circumstances shall preclude their admission on the days of public exhibition.

The Fellows of the Royal College of Physicians of London, and the Members of this College have the privilege of introducing visitors to this Museum.

N°. 4.—Return of the regulations under which Members of the College of Students in Surgery are admitted to the Library of the Royal College of Surgeons.

The library is not yet sufficiently ample to admit of its being opened for public purposes.

A classified catalogue, up to the present period, has been prepared, and every exertion is making for the completion of the library, which will be opened for its intended public uses by the 1st of January next.

The Council of the College of Surgeons humbly submit to the Honourable the House of Commons, that the Hunterian collection did not comprise any printed books; and that the Library of the College has been gradually collected, subsequently to the reception of the Hunterian Collection, from the funds of the College, aided by donations.

N° 5.—Return of the existing regulations respecting Education and Examination by the Court of Examiners.

By-Laws of the College.

Sect. 16, Parag. 1.—No person under twenty-two years of age shall be admitted a member of the College.

Parag. 2.—No person shall be admitted to an examination for the diploma, without producing to the Court of Examiners satisfactory evidence of his anatomical and chirurgical education.

Standing Orders of the Court of Examiners,

Relating to the professional education and examination of candidates for the diploma of the Royal College of Surgeons in London.

1. The only schools of anatomy, physiology, and surgery, recognised by this Court, are London, Dublin, Edinburgh, Glasgow, and Aberdeen.

2. Attendance upon the chirurgical practice of an hospital will not be recognised by this Court, unless such hospital be in one of the above schools, and shall contain on an average one hundred patients. This Court will, however, recognise attendance on provincial hospitals, containing, respectively, one hundred patients, provided a student shall have previously attended two courses of lectures on anatomy and physiology, and two courses of dissections and demonstrations, in any of the above recognised schools. The attendance on such provincial hospital shall be of twice the duration of that required at hospitals in any of the recognised schools.

3. The certificates required by this Court shall express the dates of the commencement, and of the termination of attendance on each course of lectures, and of dissections, and the periods of the commencement and of the termination of attendance on the hospital practice.

4. The required certificates shall be delivered at the College ten days, at least, prior to the day on which candidates shall be desirous of admission to examination.

The following are the certificates required of candidates for the diploma of this College, and which are to be delivered ten days prior to examination, conformably to the Standing Order, 4.

1. Of being twenty-two years of age.

2. Of having been engaged six years, at least, in the acquisition of professional knowledge.

3. Of having regularly attended three or more winter courses of lectures on anatomy and physiology, delivered at subsequent periods, and also one or more winter courses of lectures on the principles and practice of surgery.

4. Of having performed dissections during two or more subsequent winter courses, and of having attended, during the same period, anatomical demonstrations.

5. And of having diligently attended, during the term of at least one year, the chirurgical practice of one or more of the following hospitals: viz. St. Bartholomew's, St. Thomas's, the Westminster, Guy's, St. George's, the London, and the Middlesex in London, the Richmond, Stevens's, and the Meath in Dublin; the Royal Infirmary in Edinburgh, the Royal Infirmary in Glasgow, or the Royal Infirmary in Aberdeen, or of twice that term in any of the provincial hospitals, conformably to the Standing Order 2.

Persons under the following circumstances, and of the required age, shall be admissible to examination for the diploma of this College.

Members of any of the legally constituted Colleges of Surgeons in the United Kingdom.

Graduates in medicine of any of the Universities of the United Kingdom, who shall have attended lectures on the principles and practice of surgery, performed dissections, and attended demonstrations as required, § 3 and 4, and who shall have attended the practice of an hospital as described, § 5.

That from and after the 1st day of January, 1828, every candidate for the diploma of this College will be required to produce certificates of having attended one course of lectures on chemistry, and also two courses of lectures on the obstetric art and science, delivered by competent teachers, in addition to the certificates of professional education at present required.

The established regulation is, that every candidate for the diploma shall be examined singly, in the presence and in the hearing of the whole Court; and each Examiner is at liberty to ask the candidate such questions as he shall judge proper; and the practice is, that upon the conclusion of the examination, each candidate is desired to withdraw, when the president takes the sense of the Court as to the fitness and capability of such candidate to exercise the art and science of surgery.

N° 6.—Return of the Number and Distinction of Persons examined at the General and Extra Courts of Examiners, during the years 1825 and 1826; distinguishing those admitted from those rejected.

	1825:	1826:
Articled Students..........	30	25
Passed for the Diploma	342	367
Rejected for the Diploma	25	30
Passed as Army Surgeons ..	8	2
Rejected as Army Surgeons	1	—
Passed as Army Assistants..	1	1
Rejected as Army Assist.	—	1
Passed as Naval Surgeons ..	6	13
Rejected as Naval Surg...	—	1
Passed as Naval Assistants..	20	14
Rejected as Naval Assist.	7	2
Passed as Surgeon to Indiaman	—	—
Rejected as Surgeon to Indiaman............	—	—
Passed as Mate to Indiaman	2	2
Rejected as Mate to Indiaman	1	1

N°. 7.—Return of the amount of the fee demanded in each case in which any fee whatever is payable to the College of Surgeons, or any officer thereof.

On the admission of each member on the Council of the College £21 0 0

On the admission of each member, from the said Council, on the Court of Examiners.................. £21 0 0

On the articling of each student of the art and science of surgery...... £10 10 0

This sum is deducted from the fee for the diploma, when such student is admitted a member of the College.

On the grant of the diploma to a member of the College on his admission £22 0 0

On the grant of a certificate of qualification as surgeon in the army, navy, or East India Company's Service, as authorised by the Admiralty, War Office, and Directors of the East India Company £5 5 0

This sum is deducted from the fee for the diploma, when any such surgeon is admitted a member of the College.

On the grant of a certificate of qualification as assistant-surgeon, or mate, in the army, navy, or East India Company's Service; as authorised by the Admiralty,

War Office, and Directors of the East India Company	£2 2 0
By each person examined at a special Court of Examiners	£5 5 0
On the grant of the diploma to the beadle of the College	£0 5 0
On the release of a member of the College	£10 10 0

By Order of the Council of the Royal College of Surgeons in London,

EDMUND BELFOUR, Sec.
June 27, 1827.

WESTMINSTER MEDICAL SOCIETY.

March 22, 1828.

Dr. SOMERVILLE in the Chair.

DISEASES OF THE HEART.

Mr. WADE introduced the subject, by briefly recapitulating the various cardiac diseases, from simple inflammation of the membranes, to the most marked organic changes, speaking of their diagnostic signs, and of the treatment, and also relating various cases in illustration.

The discussion which ensued was of a very promiscuous kind; the principal speakers were Dr. Barry, Dr. Milligan, Dr. Johnstone, Mr. Lambert, and Mr. Skene.

The only point in the debate, especially worthy of notice, was in respect to the intermission of the pulse; it was contended, on the one hand, that this symptom results from ossification of the mitral valve, on the other, it was said, that it more frequently depends upon an ossified condition of the aortic valves. It seemed, however, to be universally admitted, that the intermission of the pulse is not an infallible criterion of either disease—that it often exists apparently as the result of mere functional disturbance.

The subject being so comprehensive in its nature, a wish was pretty generally expressed, that it should be renewed at the ensuing meeting, but this could not be complied with, as Mr. Bingham will then bring forward a paper on—"Burns and Scalds."

LONDON MEDICAL SOCIETY.

March 24, 1828.

Dr. HASLAM, President, in the Chair.

Mr. AMESBURY commenced the business of the evening, by giving a brief summary of the previous debates on the subject of fractures of the thigh. He contended, that nothing which he had advanced had been controverted. He had endeavoured to demonstrate that neither the short splints, nor the long splint of Boyer or Dessault, the fracture box, nor the plan of treatment called Pott's, were capable of answering the four indications which it had been admitted were necessary to be fulfilled. The supporters of the old plan of treatment had not made a stand at the principles, but argued upon the plea of experience. And what! is this the result of their experience? said Mr. Amesbury; why, confessedly, that deformity very frequently occurs. Indeed he did not think, that non-union was so rare a circumstance as some persons had stated.

Mr. Amesbury then alluded to a case of fracture of the olecranon, complicated with fracture of the inner condyle of the humerus; a case mentioned by Mr. CALLAWAY at a former meeting of the Society. If such an accident fell under his (Mr. Amesbury's) treatment, he would place the arm in a bent position. In the extended position, he considered, that the only advantage gained would be the relaxation of the triceps, an indication certainly of great importance, but one that might safely be dispensed with under the peculiar circumstances; for, if the arm were placed in the straight position, the inner condyle would be displaced, and a degree of deformity supervene, which might occasion great impediment to the motions of the joint, after union was completed. According to Mr. Amesbury, the most important point to be gained was the union of the condyle in its natural position, and this he thought might be accomplished by means which would insure a short ligamentous union of the olecranon. And if the condyle were united in its proper position, with a short ligamentous union of the olecranon, the patient would obtain the same degree of flexibility, and nearly as much power in the joint, as before the accident. Mr. Amesbury then referred to a diagram which shewed the application of his apparatus, in fracture of the humerus, explaining the manner in which it supported the condyles, and, at the same time, preventing retraction of the olecranon. He further said, that he did not advocate the bent position, when the olecranon was fractured alone, but when the injury was conjoined with fracture of some part of the os humeri. He had under his care, some years ago, a case of fracture of the olecranon with fracture of the lower part of the humerus; the bent position was adopted, with the use of the apparatus, and he had effected so close an union of the olecranon, that he believed it to be united by bone. Mr. Amesbury concluded by demonstrating, experiment ally, the inadequacy of the short splints in maintaining the coadaptation of the extremities of a fractured humerus, and exhibiting his own apparatus for this purpose.

Mr. Shearley thought that surgeons did not sufficiently attend to the constitutional treatment, in cases of non-union: the withholding of a customary portion of diffusible stimulus, he said, seen in one case as the very evident cause of a want of union.

After a few observations from Mr. Dermott, respecting the relative state of the muscles of the thigh in the positions of flexion and extention, Mr. Kingdon addressed the Society. He (Mr. Kingdon,) thought that for many years past, the treatment of fractures had been gradually improving; but he considered that Mr. Amesbury had made a "grand step" towards perfecting the treatment. But, at the same time that he allowed very great credit to Mr. Amesbury, admitting that he had rendered a most essential service to the profession and the public, still he could not coincide in the opinion of the entire novelty of that gentleman's plan.

The discussion on fractures having thus concluded, Mr. Kingdon briefly detailed the morbid appearances, presented by the brain of a young female, which he had recently inspected; Mr. Kingdon said, that he was unacquainted with the symptoms during life, but would obtain and submit them fully to the Society; to which occasion we shall defer noticing the appearances on dissection.

A sort of conversational debate ensued, in which Dr. Ramadge and Mr. Lambert took a principal part; the latter gentleman, relating the condition of the brain and spinal marrow, in a case of traumatic tetanus, which proved fatal in ten hours. Mr. Lambert having observed, on the authority of Dr. Parry, strengthened by his own experience in several cases of tetanus, that the danger is always imminent where the pulse is quick. Dr. Ramadge remarked that he had seen two cases of tetanus, in each of which the pulse was at 120 for some time, and yet both recovered. In one of these cases, croton oil was given with the most marked benefit.

MEDICO CHIRURGICAL SOCIETY:

March 25, 1828.

Mr. Travers, President, in the chair.

The Secretary read a continuation of Mr. Brodie's paper, on injuries of the head, embracing the treatment of concussion, of compression by bone, and from extravasation of blood.

In respect to concussion it was remarked that although two modes of treatment, which are directly opposed to each other, are advocated, yet there is not much real difference of opinion; the *depletory* plan of treatment being imperatively necessary in one stage, whilst it is highly injurious in another—the same remark was said to apply to the *stimulating* practice. It was observed however, that in many cases, blood-letting is carried to an injurious extent in injuries of the head, that it is often repeated from day to day, and yet the cerebral disturbance continues, when, by an opposite method of treatment, the symptoms yield. The author of the paper spoke of the preceding circumstances, as occurring frequently with hysterical young women.

In considering the treatment of compression, resulting from the extravasation of blood, Mr. Brodie observed, that the sanguineous effusion *on* the dura mater generally takes place at the *site* of the meningral artery on either side, and that it is advisable to "*trephine on speculation*"—that if we *do* not find extravasation, "the patient is in no worse condition than before." Mr. Brodie thinks there are some circumstances, which would render the puncturing of the dura mater an advisable measure, as for instance where, being exposed either by injury or trephining it, it is seen to "bulge." A case was detailed, which occurred in the practice of Mr. Ogle, of Great Russell-street. A woman having fallen into a cellar, was picked up in a state of insensibility, and clearly suffering from compression of the brain; the head was shaved, but there was no perceptible depression of bone; there was, however, much tenderness evinced on making pressure at a particular part of the skull. This induced Mr. Ogle to remove a portion of bone, when he found the dura mater pushed up, evidently from the effusion of fluid beneath; he punctured the membrane, and a large quantity of blood issued to the immediate relief of the patient. In trephining the skull, in cases of supposed extravasation on the dura mater, Mr. Brodie recommended that the opening in the bone should be equal to the extent of extravasation; and, in illustration of the injurious effects resulting from an opposite method being adopted, a case was related in which the opening being made small, the granulations speedily blocked up the orifice, and thus prevented the exit of purulent matter, the patient, in consequence, lost his life, from extensive accumulation of pus, on the dura mater.

Mr. Brodie is "inclined to doubt" the accuracy of Sir A. Cooper's opinion of the necessity of elevating the bone in *all* cases of compound fracture of the cranium with depression, although he admitted that, as a general rule, it held good. Several cases were detailed, which fell under the observation of Mr. Rose in the Peninsular war, and where, owing to peculiar circumstances, there was no opportunity afforded of elevating the bone, yet the patients did well.

A Member objected to that part of the treatment, in which Mr. Brodie recommended the removal of bone to the extent of the effused blood. After some trivial observations from Dr. Johnstone, and the passage alluded to, having again been read, the President remarked, that he did not consider the author of the paper intended his expression to be taken in the fullest sense, but that he wished to state his conviction of the necessity of making a very free opening, so that it might not close by granulation, as in the case alluded to, and thus prevent the exit of matter.

Dr. Foster wished to learn from the Members, whether they had seen any cases of injury of the head, followed by obliteration of memory.

A Member called the attention of the Society to a fact which had escaped the notice of the author of the paper, namely, the state of continued sleep, under which patients sometimes labour after injuries of the brain—he had seen two cases of this kind, in one of which, there was profound sleep for 16 days, and in the other instance, for nearly three weeks.

Some further observations were made in respect to the practice of blood-letting, in the stage of collapse, and a case was adduced, in which the patient was supposed to have fallen a victim to this absurd method. The president said, that he thought the old practice of bleeding, merely because there was injury of the head, was pretty nearly exploded—the treatment, in all cases, must of course be adapted to existing symptoms.

GUY'S HOSPITAL,

THE OPERATION OF LITHOTOMY, BY MR. BRANSBY COOPER, WHICH LASTED NEARLY ONE HOUR!!*

We should be guilty of injustice towards the singularly-gifted operator, as well as to our numerous readers, if we were to omit a "full, true and particular" account of this case. It will, doubtless, be useful to the country "draff," to learn how things are managed by one of the privileged order—a Hospital surgeon — nephew and surgeon, and surgeon because he is "nephew."

The performance of this tragedy was nearly as follows.

Act 1. The patient* (a labouring man from the county of Sussex, thick set, ruddy and healthy in appearance, and 53 years of age) was placed on the operating table, at a few minutes past one o'clock, on Tuesday the 13th. The only one of the surgical staff present, besides the operator, was Mr. Callaway. The ceremony of binding the patient we need not detail; the straight staff was introduced, and was held by Mr. Callaway. The first incision, through the integuments, appeared to be freely and fairly made; and after a *little* dissection, the point of the knife was fixed (apparently) in the groove of the staff, which was now taken hold of, and the knife carried onwards—*somewhere*. A small quantity of fluid followed the withdrawal of the knife; the forceps were now handed over, and for some time attempted to be introduced, but without effect. "I must enlarge the opening," said the operator, "give me my uncle's knife;" this intrument was given, and a cut was made with it, without the staff being re-introduced. The forceps were again used, but as unsuccessfully as before; they were pushed onwards to a considerable distance, and with no small degree of force. "It's a very deep perineum," exclaimed the operator. "I *can't reach the bladder with my finger.*"

Act 2. The staff re-introduced, and a cutting gorget passed along it—various forceps employed: a blunt gorget—a scoop—sounds and staves introduced at the opening in the perineum. "I really can't conceive the difficulty—Hush! Hush! Don't you hear the stone?"—"Dodd (turning to the Demonstrator), have you a long finger? Give me another instrument — Now I have it! Good God! I can hear the stone when I pass the sound from the opening, but the forceps won't touch it—O dear! O dear!"

Such were the hurried exclamations of the operator. Every now and then there was a cry of, Hush! which was succeeded by the stillness of death, broken only by the horrible squash, squash, of the forceps in the perineum. "Oh! let it go—pray let it keep in," was the constant cry of the poor man.

This act lasted upwards of half an hour; the former upwards of twenty minutes. The stone was eventually laid hold of, and never shall we forget the triumphant manner in which the Assistant Surgeon raised his arm and flourished the forceps over his head, with the stone in their grasp. The operator turned to the students and said, " I really can't conceive the cause of the difficulty," The patient being upon the table, bound, whilst the operator was "*explaining*."

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* The following passage occurs in John Bell's great work on surgery.—"*Long and murderous operations, where the surgeon labours for an hour in extracting the stone, to the inevitable destruction of the patient*"

* The poor fellow, who has left a wife and six children, said, that he "came to town to be operated upon by the '*Nevey*' of the great Sir Arstley."

The man was put to bed much exhausted, but rallied a few hours afterwards, and leeches were applied, in consequence of tenderness of the abdomen. He passed a restless night, was in great pain, and was bled from the arm on the following morning. Leeches were applied in the afternoon, and at about seven o'clock in the evening, death ended the poor fellow's sufferings, about 29 hours after the operation.

Examination of the Body.

There was a very large and sloughy wound observable in the perineum, and the scrotum was exceedingly dark coloured, from ecchymosis. The finger could be passed to the prostate without difficulty, which was not deeply situated; indeed, it was the declared opinion of Dr. Hodgkin and Mr. Key, that the man *had not a "deep perineum."* The whole of the cellular tissue throughout the pelvis was easily lacerable, and this was especially the case with the portion betweeen the bladder and rectum, admitting of the passage of the finger with great facility, and to a considerable distance. There was a tolerably fair lateral section of the prostate and neck of the bladder. The gland itself was larger than natural, and the portion which is designated the third lobe, presented a singular appearance, being of the size of the tip of the little finger, and forming a kind of valve at the neck of the bladder; part of this third lobe had a dark-coloured appearance, and it seemed as if some substance had been resting upon it. The bladder itself presented nothing remarkable.

The peritoneum lining the abdominal parietes was highly vascular, and there was a slight quantity of turbid serum in the cavity of the abdomen. The kidneys had a mottled appearance throughout their cortical substance.

There are two or three points in this case to which we beg particular attention; first, the statement of Mr. B. Cooper, at the time of the operation, that he "*could not reach the bladder with his finger*," as contrasted with the fact of the bladder being very readily reached in the post-mortem examination; the man not having a deep perineum. Secondly, the circumstance of the finger passing with facility, between the bladder and rectum to a great depth, as considered in connexion with another declaration of Mr. Cooper, that he could not feel the stone with the forceps, until the time of its extraction, although a sound, passed into the bladder downwards, from the penis, struck upon the stone; as was the case also, on one or two occasions, when a staff was passed at the perineal opening.

The surface of the calculus was rather larger than the disc of a shilling, flat, oval-shaped, and apparently consisting of lithic acid.

ATTENDANCE OF DR. FORBES AND MR. GUTHRIE AT THE WESTMINSTER HOSPITAL.

To the Editor of THE LANCET.

SIR,—Having acted as house-pupil, during the season of 1823 and 1824, at the Westminster Eye Infirmary, I feel it incumbent upon me, after the remarks you have repeatedly made, to state, that during that time, nothing could exceed the attention Dr. Forbes and Mr. Guthrie paid to that Institution. I can corroborate what Mr. Guthrie says, in his letter, regarding the punctuality of his attendance; and I have frequently known him to call at the Infirmary on the intervening days. The patients were satisfied and grateful, and the pupils pleased, with the clinical instruction given. I regret the rupture between Dr. Forbes and Mr. Guthrie, convinced that it must tend to injure the Institution.

I hope you will insert this note in your next publication, as your remarks implied a neglect of duty on the part of the medical officers, which, I am sure, at that time had no foundation.

I remain, Sir,
Yours, &c.
HENRY DUNN.

Wakefield, March 18, 1828.

END OF VOL. I.—MDCCCXXVII—VIII.

Mills, Jowett, and Mills, Bolt Court, Fleet Street.

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